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BALTIMORE, AUGUST 10, 1905.

The Manufacturers' Record has
opened an office in New York at 52
Broadway.

In a letter to the MANUFACTURERS' RECORD Mr. E. C. Knight of Livingston, Tenn., general counsel of the Cumberland Construction Co., which is building a railroad in Overton county, Tennessee, writes:

I desire to state that the people of Overton county, and especially the officials of the Overton County Railroad Co., * * * feel under lifelong obligations to the MANUFACTURERS' RECORD, for it was through this medium that we found responsible parties to construct this road for us. We shall always have a kind feeling for the MANUFACTURERS' RECORD. * * * Had it not been for the MANUFACTURERS' RECORD this section of the country would not have been any nearer a railroad than it was two years ago.

ACTIVITY IN THE SOUTH.

Midsummer has been marked by the advancement of many projects for the exploitation of the natural industrial resources of the South. In them capital from other parts of the country as well as local capital is interested, and its energies are directed upon the uncovering of mineral wealth, coal, iron ore, petroleum, building stone, etc., the purchase of timber lands, the control of streams for electric power, the building of railroads, the equipment of cotton mills, and the establishment of a variety of woodworking, ironworking and textile industries. Purchases of timber lands ranging in area from a few hundred to 25,000 to 30,000 acres have been made in West Virginia, Kentucky, the Carolinas, Florida, Mississippi, Louisiana, Arkansas, Texas and Tennessee. Oil development continues to expand in West Virginia, Kentucky, Tennessee, Louisiana and Texas, with the search for it extending to Mississippi, Alabama and Arkansas. The lead and zinc deposits of Kentucky, the copper and gold

of North Carolina and the marbles of Tennessee have attracted additional enterprise and capital, while plans for a \$50,000 glass plant at Keyser, W. Va., and for the development of potter's clay near Hot Springs, Ark., indicate the utilization in industry of other mineral resources. During the past month announcement was made of plans for new railroad construction or extensions aggregating nearly 600 miles in Arkansas, more than 200 miles in Louisiana, more than 200 miles in Florida and more than 100 miles in North Carolina, with steady progress in other States, especially in Tennessee, Alabama, Kentucky and the Virginias, in the purpose to tap the coal fields for iron industries within those or neighboring States or for markets on the seaboard or on the lakes. In textiles the most notable projects, perhaps, have been for the establishment of knitting mills at Columbus, Ga., and Durham, N. C.; of spinning mills at Concord, N. C.; Griffin, Ga., and Rockwood, Tenn.; of a cotton-roping plant at Spartanburg, S. C., and of enlargements of plants at Chattanooga, Tenn.; Spartanburg, S. C.; Batesburg, S. C., and Fitzgerald, Ga., with a report favorable to an expenditure of about \$1,000,000 in modernizing the equipment of the cotton-duck mills in the neighborhood of Baltimore. These are but suggestions of the steady progress of the South toward a realization of its full industrial possibilities.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 60, 61 and 62.

SOUTH'S FINANCIAL GROWTH.

Its steady advance towards financial self-reliance is one of the most impressive features of the South's development. Evidences that only a comparatively short time will pass before the South will no longer feel obliged to call upon financial centers in other parts of the country to provide money for handling her great crops are to be seen not only in the large increase in the number of her banks and trust companies, but also in the fact that those institutions are purchasing many bond issues made by cities, towns and counties for various public improvements. Their ability to bid for these securities is found in the gains (some of them surprisingly large) which have been made in their deposit lines, the banks of at least one city displaying increases of about 200 per cent. in deposits within the last seven years.

This is but one of many straws that show which way the wind blows in this vast Southern country, the resources of which are only now beginning to be understood by the rest of the world that was for so many years apparently endeavoring to follow the celebrated advice of Horace Greeley given by his "Go West, young man." The time was not then, but it is now to say "Go South,"

for the work of developing this wonderful section of our common country is fully under way, and those who get into its sweeping current without delay will the sooner gather the fruits of their labors therein.

The pages of the MANUFACTURERS' RECORD display the growth of the South's financial resources and the underlying fact that they are resting upon the best sort of foundation—the industry and confident energy of her people. The incorporation of new banks—numbers of which are recorded weekly—is a result of the constant demands of business for banking facilities consequent upon the growth of commerce and manufactures. How imperative is this demand is shown wherever a new bank is opened; the influx of deposits often exceeding the expectations of the bank officials. This is true not merely of the newer States of the South, but it applies with equal force to some of the older Commonwealths where industry long delayed is now taking hold of things with a firm grasp and is revolutionizing methods and districts. The mine, the furnace, the mill all testify to the reign of a new sovereign and the devoted allegiance of his willing subjects.

The Southwest shares with the South, to which it is so closely allied in many ways, in this wonderful development. New banks are chartered every week in the Indian Territory and Oklahoma in proportion as they are in States south and east of them, and the farmers of the newer prairies flock to the towns to place their earnings in the custody of banks with a satisfaction in the possession of facilities like those to which they were accustomed before emigrating to the lately-opened countries. All this is convincing of the durability of the movement towards greater things that now dominates the Southern States.

BATHOS.

President Samuel Gompers of the American Federation of Labor is reported as being incensed at the new combination in organized labor known as the Industrial Workers of the World and as giving vent to the following:

This is the conglomeration—Socialist Trade Labor Alliance, with its culture-like record, preying on the remains of those who have fallen in labor's battle.

Many of those who have fallen in labor's battle have fallen into well-paying, easy, political positions, or, in a gentleman's agreement, into the arms of interests which they have pretended to combat, with the rank and file of their creators and followers paying the bills.

RECIPROCITY.

With its vast stores of raw material for American manufacturing, the South should view with caution schemes of commercial reciprocity. Commercial reciprocity may contemplate the admission to this country of raw material free of duty at the expense of the South.

WASTE IN LEGISLATION.

Some members of the Georgia legislature believe that the time allotted for the annual session of that body is too short, and that many important measures of consequence to the people of the State cannot receive proper attention in such a period. They are, therefore, advocating an extra session this year. With one-half of the session gone, the legislature had passed, it was argued a few days ago, but one general bill, with other general bills still to be passed. The fear that their passage may be prevented by other legislation, or that the latter itself may have to go by the board, is responsible for the talk of the extra session.

The Georgia legislature is not unique in being confronted by a flood of bills threatening to overwhelm the business that must be transacted. Its position is quite similar to that of other bodies, especially those which, like it, have frequent sessions; in fact, the tendency of frequent sessions is to overburden the legislative mill with grist of really no benefit to the State. Some individual members feel obliged to satisfy the misled notion of their respective constituents that they must pass laws having immediate local significance, others act upon the theory that legislation in some other State which has attracted general attention should be furthered by them, regardless of circumstances and differing conditions, and others give quick response to the demands for special bills of individuals or organizations under the easy sway of every passing wind of sociological doctrine. Consequently, statute-books are burdened with acts uncalled for by the masses of the people, unjustified by any real demand, or to be repealed at a subsequent session, while the necessary legislation is retarded by the log-rolling or oratory of advocates of special measures. Perhaps the difficulty for Georgia and other like situated States may be overcome and taxpayers be saved unnecessary expense if members of the legislature send local, trivial, imitative and experimental legislation to the rear and put in all their time upon bills demanded by the exigencies of the State or calculated to advance its interests.

ECONOMIC SECTIONALISM.

It would be interesting to know what the effect upon the development of the country would be could a certain element in Boston find it possible to carry out its wishes to the utmost. The country is familiar with the desire centering there to control through Congress the labor of the United States because it thinks that New England is handicapped by self-inflicted restrictions upon labor and because it is blind enough to discover that the only remedy is to inflict the restrictions upon the rest of the country. The Boston desire, now that Boston has reached the limits of the benefits which the protective tariff has conferred upon it, to deprive the rest of the country of such benefits is also thoroughly under-

stood. During the past 10 or 15 years the north and south railroads in the Mississippi valley have begun to enjoy their natural share of freights traveling to the seacoast from a center of production which has moved much farther west. This change has been felt by transportation interests of Boston, and through instinct these interests would seek to regain their former prestige at the expense of the rest of the country. About the frankest confession of this sectionalism is contained in an editorial of the *Boston Herald* as follows:

Up to quite a recent time an understanding has existed between the trunk lines running westward from the Atlantic seaboard by means of which steamship lines from the Atlantic ports were permitted to carry merchandise to the Gulf ports and from there have it sent by rail up the valley of the Mississippi under conditions which were thought to be satisfactory to all transporting interests. But the trunk lines have discovered that this business of carrying Eastern wares of all kinds from New Orleans and Galveston by rail to interior points in the Mississippi valley assists in giving profitable employment to freight cars which might otherwise be sent northward in an empty condition; and, having this means of profit, the railroad companies with tidewater terminals at Galveston and New Orleans can take farming products from the interior to these points for shipment to Europe at lower prices than would be the case if the farming produce carried had to pay the costs of running freight cars both northward and southward. The trunk railroad lines do not, therefore, propose hereafter to assist in building up transportation systems which indirectly work to their detriment, and hence it is quite improbable that transportation from the Atlantic seaboard to the center of the Mississippi valley via Gulf ports will be permitted under the conditions that have obtained in the past.

Another trade condition which has worked to the advantage of these railroad systems running northward from the Gulf ports is one due to the interference in our import trade of the existing tariff system. The customs rate of \$2 per 1000 feet on lumber has stood as a barrier in the way of the incoming to the United States of large quantities of lumber cut in Canada. If this duty were repealed the probability is that the price of lumber to builders in the northern part of this country would be approximately \$2 per 1000 less than at the present time. The duty keeps up the present price; it prevents the incoming of supplies from what should be our natural source, and because of an artificially high price it induces the sending of considerable quantities of Southern lumber to find its sale in the Northern markets of the United States.

The transportation of lumber grown near the Gulf to points in the North gives to the railroad systems to which we are now referring a chance to utilize their rolling stock in the direction where the demand for it is least. While certain grades of Southern lumber would come northward for use under any circumstances, it is improbable that the quantity which is now sent here for a market would be equal to what it is if the \$2 duty were repealed. The great trunk railroad systems have, then, a direct interest in bringing about this tariff change, for if the lumber business were not artificially stimulated the companies owning railroad systems running to the Gulf would not succeed in obtaining quite a part of the money for northward-bound freight that they are now earning. If, therefore, the great trunk lines use their influence in having the tariff law repealed in this respect, they might make it impossible for the railroad companies running to the South to offer to the farmers of the Mississippi valley those inducements in rates for their corn and other products which they are sending for a market to Europe that they have been offering when this has been sent by way of Galveston and New Orleans.

That is a stone thrown with intent to kill two birds. Neither bird is likely to be hit. Condensed, the argument is this: In spite of artifices for prevention, the industrial and commercial energies of other parts of the country are expanding, because of natural advantages and opportunities, at a pace beyond the gulf of Boston. For the benefit of Boston such expansion must be checked, no matter what the loss may be to the rest of the country and no

matter how soon the dam thus built may break toward another direction, for instance, the Pacific coast. Boston wants raw material for its industries admitted free of duty and it wishes for a restoration of its commercial prestige. It therefore blandly suggests to the railroads touching Eastern ports that they do all within their power to reduce the northern-bound traffic of railroads in the Mississippi valley, in the shape of imports, so that they may not offer competing rates for outward-bound traffic. At the same time it would still further reduce the northward-bound traffic in the Mississippi valley by encouraging the North to aid Boston in its campaign for free raw material by suggesting that it find means to buy lumber from Canada instead of from the South. In that program is the plan of Boston to use tariff revision and railroad regulation for the exclusive benefit of Boston, however sympathetic with the transportation companies and Northern lumber buyers it may seem. But it may be recalled that Boston has, in the matter of railroad rates, a grievance against Baltimore as well as against New Orleans, and that its cry for free lumber is but a flimsy fence about its demand for free wool, free hides, free iron and free coal; in fact, for anything that Boston wants, regardless of the interest of the rest of the country. Fortunately for the country, the rest of the country is perfectly familiar with this Boston game, and fortunately for Boston, this latest manifestation of "philanthropy" has not a united Boston behind it. Boston capital is too deeply and to widely interested in industry, commerce and transportation to believe that Boston should be it. Boston capital knows no economic sectionalism.

POLITICAL RATE-MAKING.

Facts and suggestions of vital interest are set forth in the address on proposed railroad legislation by President David Willcox of the Delaware & Hudson Company before the Boston Economic Club, now published in pamphlet form. President Willcox opposes pending congressional legislation which would change the power of the interstate commerce commission to prevent unreasonable railroad rates to a power to fix the rates absolutely. He shows what a menace such power would be to the prosperity of the whole country. Citing a recent investigation covering about one-sixth of the value of the railway securities of the country, he says that insurance companies, with policyholders numbering 18,147,382, hold \$845,889,038 worth of such securities; savings banks, representing 6,273,754 depositors, hold \$571,031,277, and educational institutions hold \$47,468,327, while more than 1,320,000 railroad employees, with about 6,500,000 persons dependent upon their earnings, are paid \$775,000,000 annually. Here are more than 30,000,000 of the 80,000,000 population of the United States whose welfare depends directly upon the prosperity of railroad properties, which prosperity rests upon the ability of the properties to produce adequate returns. Anything affecting this prosperity will affect not only the millions directly interested, but other millions of real-estate owners, merchants, farmers and wage-earners. Nothing could be more dangerous to the value of railway property than the plan now proposed of committing it to the control of a political official body without interest in it or responsibility for results.

It is easily seen that, vested with the

power to fix absolutely rates of transportation, the interstate commerce commission would be in a position to control the prosperity of any locality or section according to the moral and social considerations which might for one reason or another dominate it, and would be firmly entrenched in a position where its practices might be overwhelmingly influential in the propagation of the theory of political control of undertakings which should remain in the hands of individual manufacturers, shippers and carriers.

In spite of superficial manifestations, the country is not prepared for such a dangerous policy, and its preparedness is not likely to be hastened by such practical addresses as that of President Willcox and by his practical advice:

The true remedy lies in the vigorous enforcement of existing statutes, which will prevent rebates and discriminations, and resort by the commission directly to the courts without dilatory preliminaries, so as to secure expeditious action by the only branch of the government which is qualified to administer justice and determine rights of property. This will prevent unjust discriminations and undue or unreasonable preferences. So far as concerns reasonableness of the rates, it is obvious that the present method under which the commission has power to pass upon existing rates has been effectual. But political rate-fixing would play havoc generally and "business by lawsuit" would be intolerable.

A little more regard for existing constitutional means of safeguarding the interests of the individual and of the community, and a little more clipping of the propensity to dodge duty by adding to the machinery of government by commission, would conduce to the future stability of American institutions and to the welfare of American citizens.

DISASTER CAME NOT.

A dispatch from Jackson, Miss., states that during the first seven months of this year but 30 bankruptcy petitions were filed, with an aggregate of liabilities not in excess of \$250,000, of which \$170,000 represented the liabilities of two companies, and that petitioners in bankruptcy before being discharged have paid from 15 to 85 cents on the dollar. When the price of cotton fell last winter it was expected in some quarters that widespread disaster would follow in the South. That such has not been the case, for the experience of Mississippi is that of other States, is attributed directly to the recovery of cotton values in the spring. For such recovery, and, in fact, for the checking of the slump in cotton values, the systematic and practical work done by Southern cotton-growers in co-operation with Southern bankers is largely responsible.

Mr. Albert L. Scott of Lockwood, Greene & Co., architects and engineers, of Boston, writing from the Southern office of the firm at Greenville, S. C., to the *MANUFACTURERS' RECORD*, says:

The writer wishes to express a personal word in appreciation of the *MANUFACTURERS' RECORD*. He has especially enjoyed your articles by Mr. Albert Phenix, and your news items can hardly be surpassed so far as the South is concerned. While we don't always agree with the position taken in your editorials, we recognize the fairness and honesty of your position, and would feel that we were missing a good deal if we were not on your subscription list.

Mr. George A. Rees of the Chicago Pneumatic Tool Co., Chicago, Ill., writes to the *MANUFACTURERS' RECORD* as follows:

We would state for your information that the advertising card in the *MANUFACTURERS' RECORD* for the past 90 days has given extremely satisfactory results.

BALTIMORE'S ADVANCE.

A general review taken 18 months after the great fire which devastated the business section of Baltimore shows results of which any city might well be proud. The character of the buildings constructed is vastly superior to those which were destroyed, being more modern, larger and more costly, and Baltimore today stands pre-eminently in the fore, with the most modern business section of any city in the country.

The total number of buildings destroyed was 1353, but deducting properties acquired by the city for improvements, consisting of street widening and new docks, the actual number of lots remaining to be built upon numbered 958, and of this number permits to build have been granted for about 770, or more than three-quarters.

The declared valuation of the new buildings, according to the records of the Appeal Tax Court, is \$14,934,120, but as this valuation is usually placed lower than the actual valuation, at least 30 per cent. can be conservatively added, which brings the actual valuation up to over \$19,000,000.

The assessed valuation of the old buildings which stood on the lots on which permits to build have been granted was \$10,840,975; thus it will be readily seen that a comparison between the assessed valuation of the old buildings and the declared valuation of the new buildings there is an increase of over \$4,000,000.

On Baltimore street the declared valuation of the new buildings is nearly \$6,000,000, or double the assessed valuation of the old buildings, and on the two blocks of West Baltimore street which were destroyed by the fire the declared valuation is nearly \$3,000,000, which, in comparison with the assessed valuation at \$705,700 of the buildings destroyed, gives some idea of the character of the buildings being erected.

The great increase in the use of fire-proofing materials is also very noticeable, and the number of buildings using these materials in comparison with the fireproof buildings in the burned area prior to the fire shows results that are most gratifying. There has also been a wide use of metal frames and sashes glazed with wire-glass, and a number of buildings have been equipped with standpipes and sprinkler systems.

Taken all in all, Baltimore's great fire has proved a blessing in disguise, and seems to have awakened its citizens to greater efforts in municipal development, for they are about to spend millions in the construction of new docks, in a modern sewerage system, in new parks and in improving the annex.

THE BIRMINGHAM DISTRICT.

Thirty-five years ago Birmingham, Ala., had just been platted and staked off. Today, according to a special edition of the *Birmingham News*, the Birmingham district has 30 blast furnaces, two steel plants with three more planned, four rolling mills, 8500 square miles of coal fields, six trunk-line railroads with others coming within the next 12 months, and 121 miles of electric car lines. The *News* tells of the millions of tons of coal, iron and steel produced annually, and says that the Birmingham district has \$15,000,000 of bank deposits, annual real-estate transactions of \$7,838,000, mercantile transactions of \$75,000,000, mining and manufacturing production of \$85,000,000 and dairy and farm production of \$8,000,000. The population is 200,000, and taxable property values in Jefferson county are \$50,000,000. The issue of the *Birmingham News* in which these figures, dealing, it should be remembered, with present capabilities, are published is called "The Ten for One" edition, a title based upon the statement of a man who has large in-

vestments in the Birmingham district to the effect that what is worth \$1 today in the district will be worth \$10 within less than 10 years, and the paper devotes the best part of 24 pages to a description of the advantages of the district generally and of the work which established enterprises are doing.

LOUISVILLE'S NEW TAX BASIS.

In its efforts to induce merchants and manufacturers to locate in Louisville, Ky., the Commercial Club of that city is publishing far and wide the fact that the city has been placed upon a license tax basis as far as mercantile and manufacturing lines are concerned. The license system will go into effect in September, and under it Louisville merchants will pay taxes upon the actual amount of business done and manufacturers will pay taxes similarly, but will have the benefit of a 50 per cent. reduction. In addition to the improved tax system, all new concerns will be exempt from taxation for a period of five years.

Kentucky-Tennessee Oil Field.

[Special Cor. Manufacturers' Record.]

Barbourville, Ky., August 7.

The outlook in the Kentucky and Tennessee oil fields is brighter than it has been for some time. The coming in of new operators from the North and East has more than offset the withdrawal of numbers of the older operators, discouraged by the low price of oil, and on all sides there is a widening out of activity. A number of excellent strikes have been made lately along the Kentucky-Tennessee line, and the tendency in that region is toward a spreading out of the scope of operations. Several recently-completed wells are outside the regular developments, and prove important extensions, especially in the region contiguous to Wayne county, the principal oil field of this State. Some wildcat drilling will be started during the next few days in the counties of Adair, Metcalf and Hard, in all probability, as Pennsylvania capitalists have been looking over that territory and are very much impressed with the prospects. In the Southeastern Kentucky fields Canadian operators announce their intention of drilling some deep test wells, and in Cumberland county the indications are for some new work of this class.

Recent completions show the Wayne and Wolfe county fields to lead in activity. Last month 19 strikes and five dusters were made in the former county, and in the latter section 12 strikes and two dusters were drilled in. The Wayne county field furnished a production of nearly 100,000 barrels during July. In Wolfe county several deep sand wells with a good showing of oil have been developed lately.

Much interest is now being manifested in the development of natural gas fields in upper Kentucky. Many thousands of dollars have been expended in drilling for gas in Menifee and Fleming counties, and between 25 and 30 excellent gassers have been brought in during the past two years. The Standard Oil Co. has been conducting most of this work, it being its intention to pipe the product to Lexington and other central Kentucky points.

The production of crude in this State last month aggregated 132,000 barrels, a slight decrease from the record of June. Prices have been stationary for two months, the better grade of oil selling at 75 cents per barrel, and the inferior grade commanding 49 cents. Little progress is being made toward making new developments in the region furnishing the inferior grade of oil.

W. S. HUDSON.

The Coosa Pipe & Foundry Co. at Gadsden, Ala., made its initial cast of soil pipe last week with satisfactory results.

WEST VIRGINIA TO BE POWERFUL IN INDUSTRY.

[Special Correspondence Manufacturers' Record.]

Charleston, W. Va., August 7.

Railroad construction, financial investment and every feature of the present enormous development in West Virginia largely revolve around the vast coal fields of the State. In these fields, greater in area than are those of any other State anywhere, West Virginia coals are more cheaply mined than in any other field. That such conditions will continue for an indefinite number of years there is no room to doubt, and this is the strength of the situation here today.

In an address, remarkable, even brilliant, for the exhaustive knowledge displayed and the ready answers given to the most intricate of cross-questions, the then Governor William A. MacCorkle, appearing before the congressional committee on interstate and foreign commerce in 1896 in behalf of an Isthmian canal, presented figures showing that whereas the average cost of mining coals in West Virginia was 75 cents a ton, it was 93 cents in Alabama, \$1.24 in Colorado, \$2.23 in Washington, \$1.87 in Belgium, \$1.65 to \$2.25 in Great Britain, \$1.75 to \$2.25 in New South Wales, and \$2.25 in Japan. These figures have not materially changed, or at least the relative differences are practically the same today, and there is no conceivable reason why West Virginia's advantage will not be maintained. The location of the veins, nearly all of which are above the water line, self-draining and in the hills, so that shaft mining is all but unheard of in the State, and the seams being of such general thickness as to permit the freest use of machines for mining, there is a combination of circumstances most favorable to the economical production of coal, and, in the nature of the case, these conditions will endure for a long term of years.

There is every reason to believe that West Virginia will inherit the position Pennsylvania occupies today. While the annual coal production of West Virginia is now only a third of that of Pennsylvania, the coal fields of this State are greater in extent by 1500 square miles than are Pennsylvania's, and whereas it is everywhere conceded that 50 or possibly 40 or even 30 years will see the end of profitable commercial coal-mining in Pennsylvania, there is today more coal in the fields of West Virginia than Pennsylvania had before one pound was taken from her mines. In the years that West Virginia has been mining coal the most liberal estimates do not reach a total output of 300,000,000 tons, and this has come from no more than 50,000 of the 11,059,000 acres which constitute the coal fields of West Virginia. So, as Mr. F. E. Saward puts it, they have merely scratched the surface here, or paraphrasing the historic utterance of John Paul Jones, West Virginia has only just begun to fight. Far behind Pennsylvania today and some 3,000,000 tons behind Illinois, the second coal-producing State of the Union, it will be but a matter of a few years until West Virginia, now third in the producing list, far outstrips all her rivals except Pennsylvania, and even the Keystone State is doomed to see her sceptre pass into West Virginia's hands.

What in the way of future developments of every sort this will bring to West Virginia it is impossible now to say; but that it means wealth production of almost fabulous proportions the most superficial observer cannot fail to see. For the present, even perhaps for 20 years, West Virginia may find her most attractive field in shipping her coal and coke to other points. Outside of Wheeling there are no very notable industrial centers in the State as

yet, and, with fortunes being easily and quickly rolled up in the marketing of fuel, there is no pressing urgency on capitalists to seek other and more intricate lines of activity. But that West Virginia will become more and more a manufacturing center there is not the slightest occasion for doubting. Even whether or not there will be another Pittsburg built up within her borders is entirely a debatable question. There is nothing Pittsburg has that cannot be duplicated in West Virginia. Here is more coal than surrounded Pittsburg in the beginning; the coking coals of West Virginia are declared to be in nowise inferior to those of the Connellsville district; the Lake Superior iron ores may be brought to West Virginia almost as cheaply as to Pittsburg, while there are possibilities in the way of utilizing here the iron ores of this State, of Virginia and of North Carolina that have not as yet been adequately demonstrated.

Besides her coal, West Virginia is marvelously rich in a variety of other resources. She is now ahead of Pennsylvania as a petroleum producer, and among all the States stands first in the production of high-grade oil, that with a paraffine base. Her geology warrants the calculations that her oil production will continue on the present scale for a long period of years. In natural gas she is also ahead of all other States, and her fields not only cover a wide area, but the yield is more persistent and the life of the wells is longer than in any other gas section yet developed. There are in West Virginia 18,000 square miles of timber, much of it virgin forest, and comprising one of the finest bodies of hardwoods to be found in the Union. Then there are all kinds of clays and shales for building brick, fire-brick, tile and terra-cotta; there is glass sand in great abundance; there is building stone, both sand and lime, in exhaustless quantities, and in spite of the hills and mountains, there are plateaus and alluvial bottom lands which are unsurpassed for agriculture, horticulture and stock-raising. The farming lands comprise 31 per cent. of the total area of the State. It is declared that there is more bluegrass country in West Virginia than in Kentucky, and intelligent and successful efforts are being made by the well-organized board of agriculture to bring the 92,000 farms of West Virginia up to the highest point of productive capacity. West Virginia's horticultural exhibit at the World's Fair at St. Louis surprised the country, and in live-stock West Virginia breeders are in the front rank.

This whole exhibit, however, is of opportunities rather than of achievements. The coal-mining has been shown to be a mere surface scratching, and in coke production West Virginia has made only a beginning, albeit her 16,000 coke ovens as against the 42,000 of Pennsylvania indicate a fairly well advanced degree of development in that line. The iron and steel manufacturing in the State is largely confined to Wheeling, where there are three blast furnaces, the only ones in the State, but having an invested capital of only about \$1,000,000, with an annual production of something over \$3,000,000 in value. In manufactures lumber and timber products lead all the rest, and yet there are less than a thousand of such establishments in the whole State, employing some 32,000 horse-power, working up raw materials during a year valued at \$6,000,000 and giving finished products worth about \$11,000,000. The opportunities for advancement in all lines of woodworking, furniture manufacturing, etc., in a State that has 11,500,000 acres of forests may be

feebly indicated when it is remarked that the one town of High Point in North Carolina, with an industrial life of only 15 years, turns out \$4,000,000 worth of furniture and other timber products every year. In the entire State of West Virginia, having now a population of possibly 1,250,000 persons, there are not more than 5000 manufacturing establishments, employing 50,000 wage-earners, who receive annually \$15,000,000 in salaries and wages, and turning out a finished product in a year worth \$100,000,000. Referring to the pamphlet "Yankee Thrift," I find that the city of Boston, Mass., with some 600,000 population, and with no large manufacturing institution within its limits, has 7247 manufacturing establishments, employing 72,142 wage-earners, who are paid \$39,184,191 in wages, and the product of these Boston factories aggregate in value more than \$200,000,000 a year. There is no indictment intended in this comparison. The sole purpose of the reference is to indicate the almost illimitable opportunity in West Virginia for industrial development.

Nearness to big markets and most excellent water and railroad transportation facilities were practically every physical advantage the New Englander possessed. All else that has made New England one of the richest corners of the earth, with \$2,000,000,000 worth of manufactured products in a year and with savings deposits of her women, children and wage-earners amounting to \$1,140,000,000, has been supplied by the ingenuity, grit and thrift of her own busy people. What will West Virginia do when she has arrived industrially within hailing distance of New England? What will she be when she has even gone as far along development lines as has Pennsylvania? The prospect may well bewilder one, for in describing such a situation as that terms of millions and billions would be constantly required and there would be attendant results of colossal individual fortunes, vast commercial and industrial centers, and a widely-diffused prosperity almost unapproached in the history of this country.

Of paramount importance, even over cheap fuel, as the history of New England's industrial development would seem to show, is the matter of cheap and serviceable transportation. New England has reached her industrial supremacy in spite of having to ship in every pound of fuel her factories consume. Her numerous harbors from which her ships sailed around the world gave her initial advantage over interior places, and in the railroad era that has superseded her coast-wise and ocean ships are supplemented by a network of railway lines. Pittsburg and Wheeling and Cincinnati have from the beginning been tremendously benefited by the Ohio river—an advantage not all the railroads can ever supplant. In all of this there is the promise of an enormous industrial development in West Virginia, especially along that vast stretch of 256 miles of Ohio river water-front, and on the navigable streams of the State tributary to the Ohio. It is a reasonable expectation that here will occur such a development as will bring to West Virginia not the mere present annual return of \$3,000,000 for natural gas, \$15,000,000 for oil, \$4,000,000 for coke, \$25,000,000 for coal and \$100,000,000 for every kind of manufactured product—less than \$150,000,000 as the product of every industrial activity in the State—but a grand total steadily increasing till it not only reaches the \$450,000,000 value of the products yearly manufactured in the Pittsburg district, but has in all lines come somewhere nearer the enormous figure the entire State of Pennsylvania shows as the value of her manufactures.

With the construction of locks and

dams, work well under way and in part completed by the national government, West Virginia will have 300 miles of interior navigable waterways in the Monongahela, Little and Great Kanawhas and the Big Sandy, giving slack water into the heart of her coal fields. With the completion of work mapped out by the government there will be a nine-foot stage of water provided for the Ohio for at least 10 months of the year between Pittsburg and Cairo, thus completing transportation facilities of unsurpassed cheapness from the very tips of the West Virginia coal fields to the docks and wharves of New Orleans.

West Virginia is likewise fortunate in her railway transportation lines, every county in the State but two now being reached by roads either in operation or under contract. At the present time there are in the State 2454 miles of main line and 1463 miles of branches, sidings, etc., making a total of 3917 miles. In 1880 there were less than 700 miles in operation here—an amount not much greater than the new construction now under way in the State. The Chesapeake & Ohio has recently been notably active in the construction of branch lines and feeders into hitherto undeveloped coal fields, and it already provides an outlet at the seaboard and the lakes, through its own line to Newport News and by the Big Four to Chicago, for a large and important coal territory. When the extensions and branches under way are completed it will have more than quadrupled the coal territory through which it runs.

Of the operations, activities and further plans of the Baltimore & Ohio and Norfolk & Western roads I will be in better position to write when I get further into their respective territories. In a general way, however, I know that they, like all other West Virginia railroads, draw much the largest percentage of their traffic from the coal fields, and depending to so great an extent on the carrying of coal, the products of the West Virginia mines are given the benefit of the widest markets. While the central West, the lake cities and even the Northwest secure an important part of the West Virginia coals shipped by rail, there is a growing demand for them all over the East, and from the seaboard termini of the three great railroad systems of the State there are considerable coast-wise shipments made, in addition to the exports made from the Newport News and Norfolk wharves. Some of the present Eastern demand for West Virginia coals is to be traced to the anthracite coal strike of three years ago, when Eastern consumers were first made aware of their excellent quality. No inconsiderable part of the present interest and investment on the part of Pennsylvania coal men is due to the revelations which they received during that anthracite strike.

Of the construction of the important Deepwater-Tidewater Railroad—very likely to become a new trunk line between Norfolk and the lakes; of the designs of the Wabash in West Virginia; of the Elkins-Davis railroad plans and of the numerous minor and independent railway operations and projects, I will not attempt to speak in detail now, leaving them for future consideration, only referring here to their great value in helping to bring about in West Virginia such a development as is warranted by the rich resources of the State. While in railroad construction there will unquestionably be a great extension and increase from the present mileage, in spite of the heavy cost of railroad construction, and the general necessity for double-tracking and paralleling present lines when such extension and increase shall occur, there seem to be in lines now built and under contract the possibilities for a most admirable sys-

tem of transportation facilities for practically every portion of the State. If the railroad companies will undertake to supply all the cars that can be loaded, the next three years will see a tide of prosperity here such as will be notable in the annals of the industrial world. The famine in cars forms the basis of the only real complaint I have heard, even in the face of the present low price of coal. This condition seems to be an ever-present one, and in times of greatest activity—as during the anthracite strike—I am told they ship coal out of here in everything short of Pullman sleepers. I remember the MANUFACTURERS' RECORD made eloquent comment on the speech of Mr. Willis L. King, president of the Jones & Laughlin Steel Co., at a meeting of railroad officials in Pittsburg last spring. The purport of the speech and the comment was that the railroads had failed to keep up in their traffic facilities with the development of the business of the country. I would echo that note of anxiety here. Mr. King told the railroad presidents to whom he spoke that the future of Pittsburg was undoubtedly in their hands to mar or make. West Virginia has entered on an era of development such as she has never known. The very atmosphere is surcharged with the electric thrill of impending vast achievements. There are almost in sight facilities for doubling the present output of coal, to say nothing of the other great activities, present and to come. As at Pittsburg, there is here a situation which it is for the railroads to mar or to make.

ALBERT PHENIS.

West Virginia Cement.

Prof. G. P. Grimsley, assistant State geologist of West Virginia, is of the opinion that deposits of limestone, clay and shale in Berkeley county are destined to make that county one of the richest in West Virginia, and that Jefferson county will not be far behind. He recently made a minute survey of the two counties, spending several weeks in driving and walking through them, and in an interview with the *Evening World* of Martinsburg he says that although a vast amount of limestone has been taken from the different quarries during the past 10 years, the supply in enormous deposits which run in veins hundreds of yards wide for several miles, with a depth that cannot be even estimated, is practically inexhaustible. He adds:

"But it is not to the limestone deposits alone that Berkeley and Jefferson counties are to look for their future wealth, for you have here another deposit that will prove to be even a greater source of riches and which will make possible the working of your limestone lands on a gigantic scale for many years to come. I mean the enormous deposits of that shale which, mixed with limestone of a certain degree of purity, forms the very highest grade of Portland cement, the best in the world for ordinary purposes, and a ready seller in all the markets. I find this shale on the surface of the ground and covering vast tracts of land in sections east and south of Martinsburg, and in close proximity to the railroads, which is an item of considerable importance when it comes to the manufacture of cement. This shale, or slate, as you people here have termed it, lies loosely on the surface and goes down to a considerable depth, where it becomes hard and fit for use for building purposes and for articles of manufacture. It is not only of a very high grade and vast quantity, but it lies in close touch with the richest limestone deposits in the county. To the manufacturers of cement this fact of close proximity of both limestone and shale is all-important. In nearly every case the manufacturers of cement erect their plants near limestone deposits

and then ship the shale from other points, often paying enormous sums for freight alone. Here you have both the chief ingredients of Portland cement within a few feet of each other, so that the limestone could be taken in one side of a plant and the shale in the other, making a saving of the big freight bills. Both deposits are practically inexhaustible, and huge plants could be operated here for many years and not make any appreciable impression on these veins. This shale and limestone have both been tested in the State laboratory, and they are found to be of the right quality. Government geologists have also examined this section, and their opinions closely coincide with mine as to the value of the deposits."

Professor Grimsley has elaborated this interview in a letter to the officials of the Baltimore & Ohio Railroad, in which he dwells upon the advantage of establishing cement mills, and mentioning the fact that but one Portland-cement mill is in operation in the State, he says:

"The nearness of Martinsburg to Eastern markets, the abundance and high character and nearness together of crude materials for cement manufacture, the water supply of the Opequon, the good drainage of quarries to be opened, the availability of electric power, the transportation facilities of the Baltimore & Ohio, the opportunity to manufacture lime, flux and rock ballast as side interests, all combine to make this section an ideal location for a large cement industry. A plant of 1200 barrels daily capacity would probably cost at this place \$500,000, and 600 acres of land about \$150,000; a total of \$650,000. Such a plant should average 1000 barrels a day output, giving a daily profit, if sold in Baltimore or Washington at \$1.60 a barrel, of \$680, or \$160,000 a year, if running only eight months at this capacity. This would be yielding an interest on the investment of nearly 25 per cent."

Alabama's Opportunities.

The business men of Alabama will come together September 12 in the eleventh annual convention of the Alabama Commercial and Industrial Association, of which Mr. Charles P. Lane of Huntsville is president, and Mr. Leslie L. Gilbert of Montgomery is secretary and treasurer. Alabama is one of the few States which has a State organization of its commercial clubs, thus providing a medium for the expression of the business men of the entire State upon any subject. The program for the coming meeting includes addresses by ex-Senator John L. McLaurin of South Carolina on the "Extension of Our Foreign Markets," and a discussion of that subject led by Erister Ashcraft of Florence, Ala.; by a representative of the national forestry service on "Intelligent Lumbering of Alabama's Pine Forests," with a discussion led by John L. Kaul of Birmingham, president of the Alabama Lumber Manufacturers' Association, and by Prof. Robert DeC. Ward of Harvard University on "Alabama and the Immigration Problem."

Some statements on the letterhead of the association regarding Alabama are worth reproducing as follows: Present production coke 2,700,000 tons, value \$8,000,000; ore 4,000,000 tons, value \$4,500,000; iron 1,500,000 tons, value \$20,000,000; cotton 1,000,000 bales, value \$56,000,000; coal 11,700,000 tons, value \$15,000,000, and pine 1,000,000,000 feet, value \$14,000,000.

For future development: Yellow-pine timber standing on 21,000,000 acres; agricultural lands suitable for farms, 12,000,000 acres; coal lands, 5,120,000 acres; limestone for Portland cement, 75 feet to 300 feet deep underlying 1,600,000 acres;

iron-ore beds, 10 feet to 40 feet deep underlying 20,000 acres, and numerous valuable water-power sites.

Opportunities at Harrodsburg.

Editor *Manufacturers' Record*:

Recognizing your journal as the principal medium of bringing before the public the industrial advantages of the Southern States, and knowing Mercer county, Kentucky, to be one of the best locations for persons looking for homes, farms and business opportunities, I write this with a view to setting out a few facts regarding this county and this city. We are in the blue-grass section of this State, known as the location of the best farms on earth, and the demand for this character of property has been and is now very great, hundreds of farms having changed ownership in this county in the past four years, and prices have advanced accordingly; farms that sold four years ago at \$40 an acre have recently sold at \$80 an acre, others sold four years ago at \$40 an acre have since sold at \$90 an acre, and the advance price is reasonable when the actual producing value of the farms is considered, as such property easily nets from 15 to 25 per cent. on the money invested. Farmers here do not rely on one or two crops. Besides the ordinary wheat, corn and grass crops, the lands produce tobacco and hemp, yielding from \$75 to \$200 an acre; in fact, any man understanding such crops can pay \$100 an acre for his farm and by growing one-fifth of it each year in tobacco can pay for it in six years, and his land will be as good as when he begun with it.

Besides our unusual farming advantages, we have opportunities for those wishing to develop mineral resources. A local company is now mining fluor-spar, calc-spar, barytes, and has traces of zinc and lead. This company will shortly install a \$20,000 plant to pulverize its product for easier shipments. It also expects to install machinery to manufacture brick from the immense sand bars owned by it and its stone deposit. It has had brick made, and the result is satisfactory. I should state that this company is operating in this and an adjoining county. This city is also a fine location for a factory to manufacture twist tobacco. We need a planing mill and extensive lumber-yard, a canning factory and a box factory. This is one of the best towns in the State, having all modern advantages, splendid schools and a wide territory. A handsome opera-house is now being erected. An electric line will soon be constructed between here and Lexington. A railroad is in prospect connecting this city with Southern Kentucky, and the Southern Railway is now being extended in a southerly direction through this city. We are in the swim with the other counties and towns of Kentucky which are now experiencing an industrial boom. W. T. EWING.

Harrodsburg, Ky.

New Mobile Industries.

At the annual meeting of the Commercial Club of Mobile, Ala., it was reported that among the industries with an aggregate capitalization of \$2,000,000 added to the community during the year were creosoting, veneer and brick plants, foundry and machine shops, boiler works, cooperage and box factory, several saw-mills, candy factory, a dredging company, a compress and an electric supplies concern. Real-estate transfers represented \$1,750,000, and more than \$286,000 were spent upon sewerage, street paving, etc. When the present contracts for paving are completed the city will have about 11 miles of asphalt, brick, granite and wooden-block pavements. The public-service corporations have also made extensive im-

provements. The officers for the coming year are Messrs. Max Hamburger, Jr., president; W. F. Tebbitts and E. L. Russell, vice-presidents; H. T. Hartwell, treasurer, and J. P. Wilson, secretary.

MIGRATION TO THE SOUTH.

An Argument Favoring the Coming of All Physically Fit.

Editor *Manufacturers' Record*:

The South has reached a point in its industrial development when it becomes necessary for those interested in its progress to consider the necessity of an influx of people to fill up the gaps made by the erection of new cotton mills and the changes incident to the requirements of labor in other industries.

If there had been no other industrial increase in the South except in cotton manufacturing, the labor problem in the mills throughout the South would never have become so acute as at the present time.

With very few exceptions all cotton mills in the South are short of a full complement of operatives, and what this means to the successful operation of any plant none but those responsible for the success of same can realize, and it is a perplexing problem to understand how to obtain the results desired under these conditions.

New England has successfully accomplished, without detriment to her industries, the change from the native-born American, who were employed in all her industries several decades ago, to the mixed nationalities which are now found in all her industrial plants, the American operatives being followed by the English and Irish, and they, in turn, by the French-Canadian, they now being superseded by Poles, Hungarians and other nationalities of Europe, so that the New England mills are operated by a mixture of several nationalities, which is advantageous to such interests, as better results can always be secured by having at command two or more classes of people, as Northern manufacturers have always realized that better results are obtained under these conditions.

While it is a foregone conclusion that the Southern States must have immigration, can they afford to make any discrimination as to any particular class of immigrants who may desire to locate within their borders? From personal knowledge of the conditions, I should say they cannot. But would advise that any and all immigrants who are sound physically be secured to locate in the several sections of the Southern States where labor is absolutely needed, diverting that class who desire to engage in agriculture to the farms, others to the manufacturing centers, and still others to work on the railroads or on general construction work, as the time is not far distant when the business that is dependent on negro labor must look for laborers who can replace them to a large extent among the industries which require manual labor to promote their development.

People who understand the characteristics of the negro race do not believe they will ever prove reliable or constant enough for mill operatives, and while there is one or two small plants in North Carolina operated by such labor, the success of same is admitted as only possible by the aid of corporal punishment, and it is not possible to adopt this method in order to accomplish results in a large manufacturing plant that requires intelligence to operate same. With few exceptions the negro is not reliable or ambitious enough to ever make a good mill operative, as his predominating characteristic is the desire to obtain by as little effort as possible the necessities of life. There are certainly

very few immigrants who come to this country that would not be of greater service in years to come in the building up of the South than the negro, for, in order to accomplish the desired results, it is absolutely necessary that those who settle in the South from foreign countries should be more independent of hired labor, and as they come to this country to better their condition and are accustomed to hard work to gain a livelihood by their original environments, it would be a boon to the South to secure people of this character; the advantage to be derived would be permanent and far-reaching in its effect in a few years, as it is not possible, no matter what their nationality, to have a class of people locate here that can be worse than the negro, brought up in a negro settlement and having the original negro instincts of the race, and this immigration would go far toward equalizing the conditions now existing in many sections, and at the same time making it much safer for the white people of the South. Until the prevailing custom of carrying weapons and being prepared at all times for the unexpected to happen can be abandoned, the South will be retarded in her progress, as it will be impossible to advance as rapidly as her resources admit until a feeling of law and order prevails and safety is guaranteed by her improved social conditions.

Immigrants are necessary for the reason that the South cannot offer any inducements which would cause people to locate there from any other part of the country, and unless they come direct to the Southern shores it would not be possible to get this class of people to remain in the South if they understood the conditions in the Northern and Western States. Had it not been for the wonderful development of the cotton industry in the South (which is largely due to Northern capital), other lines of business would never have been in the prosperous condition that prevails today, and to a great extent this has been brought about by the influence of the cotton mills; but it has been a detriment to their interests, owing to labor being diverted to other industries.

The majority of people prefer to live in proximity to or in large populated centers, and the aliens, if they become acquainted with such centers, would not locate in the unpopulated sections of the South no more than will the native American in the North leave their homes unless inducements were offered that would warrant such a change, and this is not possible, owing to the climatic conditions and the present development of the South.

It also seems that one disadvantage the South labors under is that the various industries are so scattered; also that so many of the cotton mills are small and isolated from their distributing points; and if it had been possible originally to have built up and concentrated the manufacturing business in the South as was done in the North at Lowell, Lawrence, Manchester and Fall River, the labor problem would have been much easier solved. There is less changing in large communities, and the small or medium-sized mill is never so successful as a mill of large capacity, neither is the labor problem so troublesome.

E. C. WILLEY.

Hope Mills, N. C.

The Pay of Laborers.

Mr. H. H. Kress, No. 295 Fifth avenue, New York, writes to the *MANUFACTURERS' RECORD* as follows on immigration, a topic which is now being given a great deal of attention in the South:

"I have been studying this question and conferring with a number of people who are engaged in the handling of men and securing places in various manufacturing

plants throughout the South, and believe the matter of wages is in some cases a drawback, and men, especially good men, will not embark South unless a definite schedule of wages can be promised them.

"I would be glad to have your expression and any information as to the future of the industrious workman after he locates in the South.

"I believe there are a large number of concerns which have secured green help, principally immigrants, and who would be willing to give information on this subject.

"I appreciate that if men are skilled in a particular work they are no doubt treated with fairness and are eventually paid what they are worth, but the call for unskilled labor is greatest, and if laborers can be assured of more than \$1.25 to \$1.50 per diem after they have had experience and become more acquainted, they will, in all probability, decide to be citizens and permanent settlers.

"I find the Germans are much sought after, they being a very thrifty class of people."

Labor Scarce.

Mr. E. Payson Willard, secretary and general manager of the Willard Bag & Manufacturing Co., Wilmington, N. C., referring to a recent installation of additional machinery, writes:

"Our chief drawback is a comparative scarcity of labor, which is the cry all over the South at present. While working about 175 operatives, we could easily employ 75 more at constant work with excellent pay."

THE SOUTH AND LABOR.

Varying Comments Suggested by a Recent Survey.

[Philadelphia Press.]

THE *MANUFACTURERS' RECORD* of Baltimore has just published the answers to a circular, extensively scattered among Southern employers, asking their opinion of negro labor and the possibility of substituting Italian or other labor for it. With here and there an exception, all object to the introduction of Italian labor. While negro labor is criticised as inefficient, this criticism comes for the most part from the border States. It is noticeable that in Louisiana, Texas and Arkansas strong testimony is given to the efficiency of the negro at work. In other words, where the negro labor is more dense it is more efficient. Nor is this surprising. The negro has opportunities in the Gulf States denied him where there is a greater white population.

The customary and in many cases merited objection is made to negro labor that it is ignorant, thriftless and inefficient. Little else could be expected at a remove of a generation from slavery, but the Southern employer evidently shrinks, for reasons which will be perfectly understood by those most familiar with the South, from having white labor introduced which will call for concessions and demand rights denied to the negro.

These rights Southern capital and the Southern employer—what was in the past the ruling class in the South—deny to the negro quite as much because he is at the bottom of the social scale as because he is black. As everyone knows, the white vote in the South is suppressed as well as the negro.

But the encouraging thing in the report made by the *MANUFACTURERS' RECORD* is the testimony to negro industry in the States where the negro is in large numbers. "The negro is by far the best employee that we can get." "The negro is all right. He is improving." "Any two negroes are worth more to the manufacturer as day laborers than any three native

Southern white men. We also have a number of skilled negro workmen who are worth more to us than any Southern white labor that we have been able to secure."

These are utterances from Alabama, Texas and Arkansas, which balance utterances as decided in regard to the inefficiency of the negro as a laborer.

[New Orleans *Picayune*.]

Just at this moment there is being exploited a vigorous opposition to foreign immigration. Since the outbreak of the great war between Russia and Japan there has been going on a rush of immigration from Europe to the United States.

The immigration has been largely from Russia of people escaping from the demands of military service, as well as from the despotic oppression and the generally wretched conditions under which they have suffered. There have also been large accessions to our population from the Hungarian provinces of Austria-Hungary, and from Italy and other countries of Southern Europe. This immigration has broken all former records, and has amounted to a million of people in a year.

It is contended that these newcomers from Southern Europe are of an undesirable class, and yet, making allowances for the paupers and criminals among them who manage to evade the laws and the inspectors, it must be admitted that these people work and are generally thrifty and able to make their way.

It is true that some of these people from countries where they have been held under strict and severe laws complain of their extreme disappointment in finding laws and punishment in a country where they believed that they would enjoy absolute freedom from all restraint and authority, but the fact remains that these foreigners, whatever may be their faults, are industrious, and do not fill up the ranks of the loafers and hoodlums.

In the meantime there is a general demand for laborers all over the country. The *Baltimore MANUFACTURERS' RECORD* notes that New York is advertising for 50,000 farm laborers to help to harvest the crops; Canada is offering a liberal commission or bonus to immigration agents for every man, woman and child that will locate in that country; Pittsburg sends out a dispatch telling of the great scarcity of laborers and mechanics to carry on the vast building and industrial operations of that city. The Southwest is busy and prosperous, with farmers rejoicing with an abundant harvest and with railroads crowded with overflowing traffic. From every part of the South the same story comes, and everywhere there is a cry for men. In the cotton fields, on rice and sugar plantations, on the trucking farms, in the mines and the furnaces and in the lumbering camps and the cotton mills there is a scarcity of labor.

Building operations are delayed by the inability to find carpenters and bricklayers, even though extravagantly high prices are being offered. In the central South it seems almost impossible to secure a sufficient supply of laborers to increase the development of manufacturing and mining to the extent which the pressing consumptive demand justifies. It is no longer the South alone bidding for laborers, but every section is competing to secure a sufficient number of hands to do the work that needs to be done.

This is sufficient to show that the newcomers are not unwelcome to the conductors of the country's great industries, and while this is the case it would not do to shut off all immigration from abroad. But it is not alone in the States of the Union that there is a demand for laborers. For the construction of the Panama canal, should the work attain the activity expected of it, some 20,000 laborers will be

required, and unless sanitary conditions shall be established as will be necessary to give due protection to the laborers, it is more than likely that 40,000 to 50,000 will be required.

The objectors to the flood of immigration claim that there are already many men idle in the United States, and that every newcomer who desires to work is a detriment to those already idle. There is probably no time when there are not a hundred thousand able-bodied men idle in the United States, and often the unemployed contingent numbers a million of men. In the first place, there is a large force of those who will not work as long as they can live at the expense of others. Then there are the many who hate steady employment and will have none of it, preferring to do odd jobs. Then there are the large numbers who are engaged in strikes from time to time and for one reason or another, so that there is never a time when workers are not needed unless when the commerce and industries of the country are suffering from some tremendous financial crisis.

As for the Southern States, despite their large negro population, there is a great need for reliable laborers. There are many negroes, like not a few of the whites, that hold steady and systematic work in mortal aversion, and for that reason they desert the farms and flock to the towns, where they hope to live by jobs if they have to work at all.

In many cases the wages paid the negroes enable them to work three or four days in the week and loaf the balance of the time. It is, in fact, of this situation that the MANUFACTURERS' RECORD has been moved to say that it has looked with some fear upon the possibility of the turning of a great horde of the lower classes of Italians or of other European stocks of similar grade into this section. Yet the South is unquestionably up against a stone wall. It must have more laborers; it must have them in great number, not only because their competition would make better laborers of the negroes, but because even if all the negroes worked six days out of the week they would still not be able to carry on the full development of business now possible before the South.

The simple fact is that the world's work must be done, and men and machines will always be found to do it, and in the great struggle those who will not work will be crowded out. Human necessity is as exacting and despotic that it knows no laws than the irresistible forces which drive, and the individuals or classes that shall attempt to stop its progress will be crushed, and all schemes that are intended to maintain in idleness any individuals or classes by levying on the labor or substance of others who work will fail and the idlers will have placed before them the alternatives of work or starvation.

The extraordinary growth and development of the old arts of life and the astonishing discoveries of new go far to establish the belief that the fields of production for the use and benefit of mankind are unlimited, making work for all who will work, but leaving no place in human society for the deliberate idler.

[Fort Worth Record.]

The Record has always contended that one of the most difficult phases of the South's negro problem could only be solved by the negroes themselves. We allude to the matter of negro labor. The experience of the Industrial Lumber Co. of Beaumont illustrates forcibly the bearing of negro labor upon the negro problem. Mr. Park of that corporation has written the following letter to the MANUFACTURERS' RECORD:

"I consider this is one of the most important questions which we have to deal

with in the South. There is no doubt that the shortage of labor is largely responsible for holding the South back in manufacturing. Our present daily employment at our mills is 775. About 8 per cent. are colored and a large per cent. of the remainder are Italians. We are now able to run full time. Seven or eight years ago, when we worked 60 per cent. colored labor, we were only able to run about 20 days in the month. We have long since abandoned the idea of operating our plants with colored labor, as they cannot be relied on."

For many years negroes constituted the great bulk of Southern labor, and there has been no prejudice against them as laborers. Negroes who are willing to labor have no trouble getting employment at good wages. But hundreds of employers have experienced the trouble which Mr. Park has disposed of by employing Italians. Hundreds of negroes will work only so long as they can have a little money to spend, and then they will "lay off" until it is spent. It is just this condition that has created the opening for Italians in the South, and a condition that seriously threatens the progress and prosperity of the negroes.

An employer prefers to have dependable labor—men who will work steadily, efficiently and industriously, and when he can supplant shiftless and indolent employees with men who are willing to work he is going to do it.

If the negro is ever supplanted as the laborer of the South it will be because of his indolence and unreliability, and it behooves the leaders of the race to impress this truth upon him. Last year more than 1,000,000 Europeans came to the United States. Of these, 250,000 were Italians, many of whom came South. The movement of Italian immigration to the South is gaining impetus every day, and it will increase in the ratio that the negroes neglect their opportunities and become indolent and unreliable.

The South is destined to become the area of vast operations in the future. There will be a constantly-growing demand for labor and the opportunities for labor will be great. The negroes must decide whether they will surrender their present advantages to the Europeans. By industry, efficiency and reliability they can easily hold their ground, but unless they quit "laying off" and "hanging around" they will find some morning that their places have been taken by Europeans. This is just what is going on in a limited way now. The plantations, mills and other industries are looking for men who will work six days a week.

It seems to the Record that the leaders of the negro race might consider this phase of "the problem" seriously and do something to safeguard the material interests of their people.

National Irrigation Congress.

The thirteenth National Irrigation Congress will meet at the Lewis and Clark Exposition, Portland, Ore., August 21-24. The congress has honorary vice-presidents and members of the executive committee representing 45 States, three Territories and the District of Columbia, and its leading officers are: President, George C. Pardee of Sacramento, Cal.; vice-presidents, L. W. Shurtliff of Ogden, Utah; J. H. Stephens of Vernon, Texas, and E. L. Smith of Hood River, Ore.; chairman of executive committee, C. B. Booth of Los Angeles, Cal.; vice-chairman, A. H. Devers of Portland, Ore.; secretary, Tom Richardson of Portland, Ore., and chairman of press bureau, Guy E. Mitchell of Washington, D. C. The congress has five sections—on forestry, on production by irrigation, on engineering and mechanics, on climatology and on rural settlement.

EDISON'S STORAGE BATTERY.

His Solution of the Problem of Electric Propulsion of Auto Vehicles.

Two telegrams received by the MANUFACTURERS' RECORD this week are brief records of inventions likely to hasten wonderfully the full day of the automobile age. The one from Thomas A. Edison at Orange, N. J., referring to his perfected cell for the storage battery of auto electric vehicles is as follows:

"After two years' actual experience with 14,000 cells in 160 vehicles operated all over the country by express companies and private individuals, the final and standard cell has been produced, and will be manufactured in quantities in the fall. I feel certain that this cell, which does not deteriorate, and which stores one horsepower hour for every 45 pounds of weight, will solve satisfactorily vehicle traction in cities."

EDISON."

The other bears upon the invention of Peter Cooper Hewitt, son of the late Abram S. Hewitt of New York, of the single-phase vapor converter for charging storage batteries which will simplify the problem of keeping touring vehicles supplied with power. It is as follows:

"The Cooper Hewitt static converter, manufactured by the Cooper Hewitt Electric Co. for charging storage batteries from alternating current, is efficient, and will do all that is claimed for it. It is my opinion that the usefulness of my invention is more far-reaching than has yet been claimed."

PETER COOPER HEWITT."

Regarding the inventions Mr. Edison has been quoted as follows:

"The troubles in the battery that I have been trying for two years to remedy have been purely mechanical. They have been greatly due to the swelling of the nickel element. I have succeeded in reducing the weight of the battery to from 40 to 45 pounds per horsepower. It has taken time to find out what was needed for this battery, because we can't look ahead and see just what such a thing is going to do after we have it sketched on paper. In the two years I have been experimenting we have turned out some 14,000 cells and have operated 160 auto vehicles."

"I do not pretend to have solved the problem of touring vehicles. That can only be possible when more charging stations are spread about the country. Young Cooper Hewitt of New York has helped to solve that problem with his mercury rectifier, which takes the place of the old transformer and makes it possible to convert the alternating currents used in small towns so as to make them available for charging the batteries."

"With proper motor and wagon equipment we can with our cells operate an ordinary delivery wagon for 58 per cent. of the cost of maintaining a horse."

TEXTILE ACCOUNTING.

By JOEL HUNTER

of Brown & Hunter, Public Accountants and Auditors, Atlanta, Ga.

It is not intended in the following short article to cover the wide ground of textile accounting, but simply to call attention to a few points which are of interest to mill managers and accountants. A prominent Southern cotton-mill president of many years' experience expressed the opinion that more failures were due to an imperfect knowledge of the business than from any other one cause. This is pretty generally recognized, and a realization of this fact is causing an increased desire on the part of mill managers to so arrange their accounting systems as to allow the ready preparation of quarterly financial statements and cost sheets. The question arises, though, is not three months too long a time to wait for a full presentation of the details of earnings and expenses?

It is true that in most instances where certain costs, such as labor and material, are supposedly fixed that a monthly and even weekly record is kept, but it is almost invariably found, when for purposes of comparison with the quarterly financial statement prepared generally by the auditor, that a consolidation of such weekly or monthly records does not agree with the aforesaid quarterly statement. The quarterly balance-sheet should be, and generally is, based upon an actual inventory. As is well known, the result shown by the figures of the statement of earnings and expenses should agree with the profit or loss figures exhibited on the balance-sheet.

It has been urged, and with some show of reason, that it is too expensive to take a monthly inventory, and right here is the explanation of the above-mentioned difference between the consolidated monthly (or weekly) records and the auditor's quarterly balance-sheet, the data generally used in such monthly records not being comprehensive enough to catch all the items of cost. By "too expensive" our contemporaries mean that the result attained is not worth the cost of preparation; but we submit that if a mill is running three months on an inaccurate cost basis the quarterly realization is apt to be surprising and perhaps disastrous.

These are strenuous days. In the fight for success only the best tools, appliances and machines are used, provided they get results. The slogan of the up-to-date superintendent is "Get the maximum production and keep up the quality." It is surprising how frequently the office is neglected. Records should be kept so as to show the exact cost of working week by week and month by month.

The province of the auditor, particularly with the large corporations where the best accounting systems are in use, is more than the mere checking of detailed items. The auditor's most important work is the verification as an outside disinterested party of the methods used in arriving at certain results. Accounts in every industrial enterprise correspond to the history of a community or nation; they must be accurate and up to date. The office must keep up with the times—even a little ahead of them.

Will Build Car Works.

Last week the MANUFACTURERS' RECORD referred to the rumors that the American Car & Foundry Co., general offices in St. Louis, will build a branch car-building plant in the South, probably in the Birmingham district. It can be authoritatively stated now that the company does intend to establish a branch in the South, but nothing has been determined as to the location, amount of investment, capacity of plant or other details.

The Greater Mississippi Association and the Mississippi State Business League will meet at Jackson September 19-20 for the purpose of federating the two organizations. Coincidentally will be discussed the importance of Panama canal work and the encouragement of new manufacturing plants to produce for the export trade.

The Commercial Club of Gadsden, Ala., has elected Messrs. E. W. Whips, president; S. E. Jordan and B. B. Pegrum, vice-presidents; J. R. McMullen, secretary; Joseph Balfour, treasurer; M. W. Bush, T. S. Kyle, A. D. Simpson, E. H. Cross, J. M. Elliott, Jr., A. T. Stocks and R. A. Mitchell, directors.

Mr. W. H. Flint, secretary of the American Public Works Association, announces that the first annual convention, which was to meet at Lookout Mountain, Chattanooga, August 30-31, has been postponed until further notice on account of yellow-fever quarantines.

FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

A Branch in Egypt.

J. G. Johnson & Co., Constantinople, Turkey:

"We beg to inform you that owing to our increasing business connections with Egypt we have decided to open a branch house in Alexandria, and will add that in the course of the next twelvemonth we intend establishing another branch house in Cairo. Our business in Egypt has been entrusted to the care of our manager, Mr. Sp. P. Spanopoulos."

For a Charcoal Plant.

A. K. Stillmark, Jekaterinodar, Kuban-Gebiet, Caucasus, Russia:

"Will you kindly cause to be sent to me from competent firms catalogues, prospectuses, etc., and if possible with complete illustrations of installations for charcoal plants. I have demand for a plant of the kind for working up per day of 24 hours 30 cubic meters of pine into charcoal, wood spirit and wood lime."

Wants Canned Food.

E. Angelo Naturale, No. 25 Via Roma, Torino, Italy:

"I take the liberty of asking you to give me, if possible, the names of some No. 1 firms specially engaged in packing foods, such as canned meats, canned fish, corn beef, ox tongue and other American specialties which might find sale in Italy."

For Carriage Hoods.

Rosse Freres, Breteuil-Sur-Iton, France, makers of carriage tops:

"We wish to purchase tubular fans for making hoods for carriages. This article must be made in some part of the United States, but we do not know the address. We are well situated to place a large amount of this article in France."

Roasting Machines.

Schwartz Bros., Gross Wardein, Hungary:

"We beg you to send us the price-lists of factories making hand fire extinguishers and machines for roasting chicory and tea and machines for making packing filling."

MACHINERY FOR BRAZIL.

Suggestions of Markets for American Manufacturers.

Consul-General Seeger of Rio de Janeiro, Brazil, under date of July 5 supplies the bureau of manufactures of the Department of Commerce and Labor, through the State Department, with two letters written to him by Brazilian merchants requesting to be furnished with names of manufacturers in the United States of agricultural implements and structural iron. The letters were written in confidence, and for reasons that will be understood by business men the names of the writers are withheld. The letter from the firm dealing in agricultural implements, and which has been making its purchases from English houses, is here given:

"A few months ago we ordered, through an English firm established here, several American machines for agricultural purposes and were so satisfied with them that we forwarded new orders. Unfortunately, we find that the machines received are of English make, and copy exactly the American type and system, being notwithstanding of inferior quality. Therefore we shall be very thankful if you will furnish addresses of American factories for plows,

cultivators, harrows and other implements, because we intend importing such articles directly in future, so as to avoid imitations."

The other letter, written by a firm in Rio at present representing iron contractors and builders of France and Belgium, is as follows:

"As we know you take a great interest in promoting the commercial and industrial relations between the United States of America and Brazil, we take the liberty to make the following proposition, which we would like you to consider:

"We are representatives in Brazil of several iron contractors and builders of France and Belgium, and, as you know, all European iron merchants have formed a syndicate to sustain prices of their products. It may be a good opportunity now for a new competitor without such engagements and in a position to compete with the European industries to enter this market, particularly as several important North American companies were formed in Brazil a few months ago. What should not Americans do here that they do successfully in Europe?"

"We would be much obliged to you if you could put us in connection with a good steel factory and important rolling mill and iron foundries and constructors able to supply us with iron frameworks, bridges, etc. We are perfectly sure that many North American iron and steel manufacturers are in a condition to work as cheap as any European competitors and to give the same credit. You are here long enough to testify to the rapid expansion of the German trade in Brazil, and to be informed of the means employed by firms to win the commercial supremacy. You know the great facilities of payment by the German factories to their customers. There is no reason why North American merchants should not do what others do."

Parties desiring to communicate with these firms can obtain their addresses by writing to Eugene Seeger, consul-general, Rio de Janeiro, or they will be furnished upon application to the bureau of manufactures at Washington.

A Prosperous County.

The board of commissioners of Gaston county, North Carolina, which has recently voted favorably to the issue of \$300,000 worth of bonds for the improvement of roads, has issued a booklet setting forth the advantages of the county. Within its area of 340 square miles is a population of 34,000, with property valued at \$16,000,000, and with 36 cotton mills having an aggregate of 296,117 spindles and 6000 looms, and two new mills and a bleachery in course of erection. During the past two years the county has spent \$10,000 in building new schoolhouses, and during the past 10 years between \$35,000 and \$40,000 for 12 iron bridges and a number of substantial wooden bridges. The county will have completed by the close of this year 27 miles of graded macadamized roads. The present indebtedness of the county is but \$30,517.

To Build Cotton Machinery.

A plant for the manufacture of cotton-mill machinery will be established at Charlotte, N. C., by the Southern Spindle & Flyer Co., which was incorporated last week with capital stock of \$20,000. This company has organized with T. M. Costello, president; W. H. Monty, treasurer, and A. Guilett, secretary. It will erect a building 50x150 feet in size and install modern machinery for making and repairing spindles, steel rolls, pressers, spinning and speeder frames, etc.; offices at Cedar and 1st streets.

MINING.

Working Louisiana Sulphur.

Editor Manufacturers' Record:

In reading yours of the 27th instant, wherein you refer to an article by the *Engineering and Mining Journal* in reference to the method of extracting sulphur from the ground by the Union Sulphur Co., I think, located near Lake Charles, La., I think a wrong impression is conveyed when it is stated that the sulphur is "pumped" into immense wooden vats; and if the method were correctly given it would, I think, prove to be most interesting reading. I am not versed in the art of word-painting, but will endeavor to impart to you the idea as conveyed to me by one of the parties interested in this development while I was on a visit to that section some months ago. From this you may determine if this subject is of sufficient interest to get all of the facts to submit to your readers as to the wonderful growth in the South.

The crude sulphur is melted about 700 feet below the surface of the earth by the steam generated by the immense boilers, as cited in the article. This causes the sulphur to rise a certain distance, but not to the surface by hundreds of feet. The steam is conducted below ground in an iron pipe of about 12 inches in diameter. Into this pipe two other pipes are inserted, one about four inches, through which is forced compressed air, and the other of about two inches, out of which the boiling sulphur is forced by the pressure from the compressed air, the steam keeping the sulphur in the melted condition while being forced through the smaller pipe by the compressed air. This melted sulphur flows day and night in a consistency of about molasses. In this condition it is turned into vats, giving it the shape that it is marketed in. The most remarkable part of it all is that the sulphur as extracted is almost pure, being about 95 per cent.

The enterprise is far beyond the grasp of one who has not had the pleasure of hearing the description by one connected with all of the details or who may have witnessed the sight. As well as I recall, the promoters were seeking for oil, the evidence of which was clearly to be seen floating on the surface of the waters of the Gulf. When they had bored quite a number of feet they were confronted with a most disagreeable odor, and later came into possession of some of the sulphur crystals that came up while boring. After this they devoted their energies to the developing of the sulphur plant. The difficulty of getting the sulphur to the surface after melting it below ground several hundred feet was so staggering that one of the interested parties suggested to his associates that he would eat all of the sulphur that was ever brought to the surface through the melting process as above. Later on he received by express a package containing some few pounds and a letter advising him that more was on the way.

In the course of time the sulphur importations dropped off to a great extent, and the Sicilians et al. predicted that the United States were going to the bad. Their awakening must have been rather tragic, as I understand that the United States are very heavy users of the whole amount produced by Europe. Thus our untold resources are gradually being brought to the light of day.

J. I. WESTERVELT.

Greenville, S. C.

Louisiana Waters.

The geological survey of Louisiana, Mr. Gilbert D. Harris, geologist in charge, has begun the publication of bulletins, and the first one issued includes all the present

available knowledge regarding underground waters of the State. Many letters have been received asking for information regarding artesian and deep-well prospects in every portion of Louisiana, and the bulletin is a general reply to such inquiries. The facts set forth are based on careful observations covering a period of three or four years. This bulletin is to be followed by bulletins dealing with salt, lignite, oil, etc.

Coal Lands.

It is reported that Messrs. George L. Hibbs of Uniontown, Pa., and E. L. Denny of Waynesburg, Pa., have purchased 1735 acres of coal lands from J. W. Wiley of Scottsdale, Pa. The property is located in West Virginia, near Moundsville, and the consideration is said to have been \$100 per acre.

Mining Notes.

The value of clay products in the United States in 1904 was \$131,023,248.

On Monday and Tuesday of last week over 8,000,000 bushels of coal were shipped from Pittsburg to the South.

During the month of July 15,482 tons of coal and 2840 tons of coke were exported from Baltimore, Md., to foreign ports.

The Blue Ridge Mining Co. of Morganton, N. C., has been incorporated with a capital stock of \$1,000,000. The following are incorporators: Charles Beebe and Charles W. Fisher of New York and Leith Gordon of Morganton.

The value of natural gas produced in 1904 in 18 States and two Territories was \$38,496,760, of which Pennsylvania produced \$18,139,914 worth, West Virginia \$8,115,249, Ohio \$5,315,564, Indiana \$4,342,409, Kansas \$1,517,643, New York \$522,575, Kentucky \$322,404 and California \$114,195. Arkansas, Alabama, Texas and Tennessee were among the smaller producers.

Would Move South.

In last week's issue of the MANUFACTURERS' RECORD was a letter from a resident of Canton, Ohio, expressing desire to find employment in the South. Since that was published the MANUFACTURERS' RECORD has received from an engineer in the same State who had noticed the study in the MANUFACTURERS' RECORD of the labor question in the South the following:

"I am taking the liberty of writing you to find out, if possible, where direct information could be obtained about opportunities in the South and Southwest, and whether mechanics are in demand. I am young and single, and would like to make a change. I am a licensed engineer by profession, and have served an apprenticeship at my trade. I am willing to go anywhere, but should prefer the open-air life of a lumber camp."

Letters addressed to "Western Engineer," care of the MANUFACTURERS' RECORD, will be forwarded to this writer.

Laurel's Financial Health.

[Special Cor. Manufacturers' Record.]

Laurel, Miss., August 5.

This city, with a population of between 7500 and 8000, has no floating debt, has more than \$17,000 in the treasury and a bonded debt of \$100,500. The estimated value of property in the city is \$2,500,000, and its assessed valuation is \$1,763,000. In the assessed property is not included a cotton mill worth \$300,000 or a wagon factory worth \$50,000 or \$75,000. These do not appear on the assessment roll, inasmuch as under the State law the factories are exempt from taxation for a period of 10 years, and these two factories have still five years in which to enjoy the exemption.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

WESTERN MARYLAND WORK.

Double-Tracking Contract Let—Talk About the Wabash Link.

The letting of the contract for second track on the Western Maryland Railroad from Fulton Station to Walbrook, both at Baltimore, marks the beginning of extensive double-track improvements projected. It was stated at the office of the company that other contracts to continue the second-track work to Emory Grove, Md., would probably be awarded by the middle of September, when it was expected that all right-of-way matters would be settled.

Meanwhile the Cumberland extension is being pushed through, and will probably be finished before winter, thus providing the road with its own line all the way from Baltimore to a connection with the West Virginia Central. The revision of the main line from Williamsport to Big Pool will also be made as rapidly as possible, contract being let.

The Western Maryland has been making a number of surveys with the view to improving its line through the Blue Ridge, some of them being several miles from the present route. This prospecting work, which has been going on for some months, is still under way, and after a careful sifting of the data collected the company will decide which route is to be adopted.

As for the connection that is to be made between the West Virginia Central and the Wabash, it now appears that it will go by some route other than that of the Buckhannon & Northern Railroad, which was started as an extension of the Belington & Northern branch of the Central. It was to go through the lands of the Little Kanawha Syndicate formed by Joseph Ramsey, president of the Wabash, and formerly president of the Western Maryland. But now, according to a report from Pittsburg, Vice-President F. A. Delano of the Wabash says that the syndicate has sold its property to other interests, and that the Wabash will obtain its own route through Greene county, Pennsylvania, and thence to a connection with the Central. Furthermore, that these plans are to be taken up this fall and work will begin next spring.

When the Western Maryland changed hands, Baltimore city selling control to the present owners, there was more or less talk of the possibility of building a direct connection to the Wabash. Pittsburg is about 85 miles in an air line from Cumberland, or about 125 miles from Chambersburg, Pa., also on the Western Maryland, but the engineering difficulties confronting any plan to build through the mountains are tremendous. The South Penn route, over which the Vanderbilts began building 20 years ago, is still there, but parts of it are in hands hostile to the construction of any new railroad to Pittsburg from the East. It is extremely doubtful whether it would pay to build a costly direct route when a longer line suitable for freight could be easily constructed by going directly south from Pittsburg to reach the West Virginia Central; nevertheless there exists the possibility that traffic conditions may assume such huge proportions within the next five years that cost would not stand in the way of a direct line.

Such a route could be built by going westward across the mountains and entering either the Conemaugh valley, through which the Pennsylvania road runs, or the Youghiogheny valley, along which the Baltimore & Ohio track lies. But it is also possible to find a route outside of either

of those two valleys, and, in fact, the Baltimore & Ohio has made surveys for the purpose of shortening its line by means of a new road leaving the present main track near Hancock, Md., and going over the mountains near Bedford, Pa., and thence to Geiger, a station on its Johnstown line, from which point a direct route to Pittsburg would be taken, perhaps connecting up one or two existing lines on the way. This route would save the B. & O. 50 miles, and the fact that it is practicable indicates that another line equally good might be obtained by the Western Maryland and the Wabash. Mr. Ramsey's resignation as president of the Wabash takes effect October 1, and after he and Mr. Gould return from Europe important developments are expected in the affairs of the company.

ORIZABA TO LA PERLA.

Plans for Building a Railroad in a Rich Mexican Region.

Mr. T. Alfred Kennion, commission and general agent, Orizaba, Vera Cruz, Mexico, writes the MANUFACTURERS' RECORD confirming the report that he has secured the contract for the construction of a railroad from Orizaba to La Perla, with power to build branches to other points. Continuing, he says:

"I am figuring on building this road with local capital, assisted by parties in Mexico City, but until the company is formed for that purpose I would be disposed to consider a proposition from other quarters; in fact, under equal conditions I would prefer a foreign company to build it, as this district is very rich and needs foreign energy to give it a lift. Situated, as it is, between Mexico City and Vera Cruz, the majority of foreigners coming to this country give Orizaba the go-by in their haste to get to either of the points named. Owing to the large amount of water-power available in this vicinity, this is destined to be one of the best manufacturing centers of the republic, especially when its favorable situation in regard to proximity to seaport and the capital of the republic, as well as its healthy climate, are taken into consideration.

"We already have a large jute factory, several cotton mills, a brewery, some sugar and aguardiente factories, and many others could with advantage be established here. The existing tramway system (mule) in this city would certainly prove a paying investment if taken over and run properly, even though the price asked by the present owners is relatively high, as the concern will earn 8 or 12 per cent. even on that figure and run in the manner it now is. I shall be glad to furnish inquiries with information regarding this district, and will endeavor to answer any questions.

"With regard to my line, would say that I am not yet securing labor for its construction, but expect to have the engineer in the field very shortly. I have six months in which to produce the plans of the main line, and two years after that to commence construction; also two years in which to decide as to the building of the branches, with an additional year for their construction. The track will be wide gauge."

OVERTON COUNTY LINE.

Construction in Progress to Be Finished by Next Spring.

Mr. E. C. Knight, general counsel and treasurer of the Overton County Railroad Co., writes from Livingston, Tenn., to the MANUFACTURERS' RECORD as follows:

"Active construction work has begun on the Overton County Railroad, connecting with the Tennessee Central Railroad in Putnam county, Tennessee, and running to Livingston, Tenn.

"The Cumberland Construction Co., H. E. Overstreet, president, and H. E. Speyer, general superintendent, both of Chicago, but now at Livingston, Tenn., is constructing the road. The company is working all the teams it can procure and also all laborers who can be had. All material, etc., is on the right of way for the construction. Work will be rushed, and the completion of the line is expected by the first of February and March, 1906.

"E. C. Knight is general counsel for the Construction Company, and has charge of all legal matters.

"The Overton County Railroad Co. has procured the Cumberland Construction Co. to construct this road for them.

"Already Livingston and Overton county are on quite a boom. Five new saw-mills have been sold to lumber dealers within the last week, and preparations are being made to begin stacking lumber on the yards ready for the first cars. It is expected that many million feet of lumber will be stacked near the depot grounds for shipment by the time the cars are running.

"The timber of this section of country is practically inexhaustible, and this will afford plenty of traffic for the railroad for many years." W. M. Breeding is president, and Phil. Wheat, secretary, of the railroad.

Mr. Knight also writes that the Messrs. B. & P. Armitage of Philadelphia, formerly interested in the proposition, are no longer connected with it.

Tennessee Industrial Railroad.

[Special Cor. Manufacturers' Record.]
Florence, Ala., August 3.

The survey of the Tennessee Industrial Railroad Co. has been completed, the point at which it began being Pong Station, on the Clarksville Mineral Railroad, from which it runs straight to Florence, touching the great phosphate deposits of Hickman county and the brown ore beds of Wayne county, Tennessee, and opening up a timber section hitherto without railroad facilities. While the engineers would not discuss plans, Mr. B. H. Hall of Hall & Carr, New York, finished his examination as to the probable tonnage of the proposed road and stated to your correspondent that he was amazed at the volume of business to be had; that it was a revelation to him to see these great deposits of phosphate and iron ore, as well as the vast forests of fine hardwood. He also said that arrangements would soon be completed for constructing the road, and that its ultimate destination was the Gulf of Mexico, and that connection would be made for Chicago and other Northern points. With the engineers was a representative of the company taking rights of way.

The line surveyed is 200 miles long, and passes through not only a mineral section of great size, but a rich agricultural region.

THURSTON H. ALLEN.

NORTH ALABAMA COAL.

Central of Georgia Extending Into the Tunnel Company's Fields.

Mr. Henry M. Steele, chief engineer of the Central of Georgia Railway Co., writes from Savannah, Ga., to the MANUFACTURERS' RECORD concerning the railroad's development of coal fields in the upper Cahaba region in the northern part of Alabama. He says:

"The Tunnel Coal Co. owns about 10,000 acres of very fine coal land, and is building a spur-track extension to reach the same. This track will be about 11 miles long. There are three steel-plate girder bridges. The work is fairly heavy. The track will be laid in a first-class manner and ballasted with slag. Redmond & Gabbett have the contract for the entire work, which we expect to finish early in

November. The mines will be reached only by the lines of the Central of Georgia Railway. The officers are Ross C. Smith, president, Birmingham, Ala.; T. S. Moise, general manager, and Henry M. Steele, chief engineer, both of Savannah, Ga.; H. A. Turner, division engineer, of Birmingham, Ala., and Edgar Bridge, resident engineer at Henry Ellen, Ala.

The Waccamaw Railroad.

The Waccamaw Railroad Co. has been chartered in North Carolina to build a line from a point on the Cape Fear river at or near Old Town, Brunswick county, west or northwest to Waccamaw river or Lake Waccamaw, about 50 miles. The directors are E. Nelson, Detroit, Mich.; E. S. Hartwell, Chicago, Ill.; J. E. Clark, C. E. Clark, E. H. Williams and W. H. Chadbourne, all of Wilmington, N. C. The incorporators are E. Nelson, E. S. Hartwell, J. E. Clark, W. H. Chadbourne, C. E. Clark, E. H. Silliman, J. H. Chadbourne, J. S. Armstrong, J. V. Granger, P. Heinsberger, Jr., Iredell Meares, J. C. Munds, L. S. Belden, W. H. Green, H. L. Hunt, C. S. Granger, M. F. Gouveneur, C. E. Taylor, Jr., M. S. Willard, Chas. McMillen, J. M. Johnson, W. A. Wick, J. W. Yates, Wm. E. Springer and E. T. Draper, all of Wilmington, N. C.

ANTOINE TO CADDO GAP.

Contract Let for Building the Gurdon & Fort Smith Railroad.

Mr. E. F. Mitchell, engineer of construction of the Missouri Pacific Railway, writes the MANUFACTURERS' RECORD from St. Louis, Mo., that a contract has been awarded to the Dalhoff Construction Co. of Little Rock, Ark., for the construction of the Gurdon & Fort Smith Railroad between Antoine, Ark., and a point near Caddo Gap, Ark., 34 miles; also for six miles of the Gurdon & Fort Smith Northern Railway extending in a northerly direction from a connection with the Gurdon & Fort Smith Railroad. Work will begin immediately. Mr. C. H. Smith is engineer in charge, and it is expected that the line will be completed for operation early next year.

Houston to Alexandria.

The Houston, Beaumont & Red River Construction Co. has awarded a contract to P. R. Turney for the first 40 miles of the railroad promoted by Edward Kennedy and others, to run from Houston, Texas, to Alexandria, La.

The route of this road is from Houston to North Dayton (or Myrtle Ridge) and via the following towns: Perryman, Batson, Saratoga, Kountze, Jasper, Texas, and on to Leesville and Alexandria, La. It will penetrate some of the finest pine forests in Southeast Texas, and lies between two other trunk lines, but not accessible to either. It crosses the Sabine river at a point 80 miles north of the Southern Pacific and 100 miles south of the Houston, East & West Texas.

Will Build an Electric Railway.

Mr. J. J. Haley writes from Westminster, S. C., to the MANUFACTURERS' RECORD that the Oconee County Railway Co. proposes to build an electric line from Westminster or Seneca, S. C., to Townville and Fair Play, S. C. The line will divide at Oakway, with one branch via Tokeena to Townville and the other via Tugaloo to Fair Play. It will be 24 miles long, and will follow a nearly level route along a ridge without any streams to be crossed. The company would like to have offers of rails by the mile; also for engine and boiler of sufficient size to operate a plant which will propel the cars, say two each way daily. Offers are also desired on dynamos, wiring, etc., to make the line complete.

Southern to Tampa.

Press dispatches from Gainesville, Fla., announce the sale of the Gainesville & Gulf Railroad, 48 miles long, from Fairfield via Gainesville to Sampson City, to F. M. Simonton of Tampa, Fla.; A. P. Stuckey and B. W. Blunt of Ocala, Fla. It is said that the Southern Railway Co. is back of the deal, and that an extension will be built from Fairfield to Tampa. S. F. Parrott, vice-president of the Georgia Southern & Florida Railway, which is in the Southern's system, has been elected president of the purchased road, and Messrs. Stuckey and Blunt were elected vice-presidents.

Seaboard Connecting Road.

The Seaboard Air Line is reported to have decided to build a railroad from Elberton, Ga., on the Atlanta main line, southeast via Augusta to Clio, Ga., or some other point near there, but also on the Seaboard's line, into Savannah. This would make a short route from Birmingham and Atlanta to tidewater.

Winchester to Washington.

The Winchester & Washington Electric Railway Co. has let the contract to build a dam, raceway and wheelpits at Millville, W. Va., to Ed. Purcell & Co. of Harrisonburg, Va.

Japan's Railroad Orders.

Rush orders aggregating nearly \$5,000,000 have, it is reported in the *New York Times*, been placed in this country by the Japanese government for material for the extension of a railroad which now runs from Fusan, on the southeast coast of Korea, to Seoul, and which it is planned to carry beyond the Yalu for 150 miles into Manchuria to a junction with the Chinese Eastern Railway, which runs from Harbin to Dalny and Port Arthur. An order for 350 steel bridges costing \$500,000 has been placed with the United States Steel Corporation, one for 150 narrow-gauge locomotives with the Baldwin Locomotive Works for \$2,225,000, and two for a total of 1000 cars with the Western Car & Foundry Co. and the American Car & Foundry Co. for \$2,000,000. The freight charges for the orders will be not less than \$2,200,000, and the cars are to be shipped within the next 30 days.

Sewanee Review.

The *Sewanee Review* in its last quarterly issue contains the following articles: "Can the Ideal College Live in a Great City," by William Cranston Lawton; "The Poetry of Lawrence Binyon," by Cornelius Weygand; "A Glance at the American Stage and Semiramis and Other Plays," by Edwin Wiley; "Ibsen as a Dramatist," by Frederick W. Roe; "The Development of Arthurian Romance in Mediaeval France," by J. Douglas Bruce; "A Brief for Boswell," by Joshua W. Caldwell; "Letter Writing and Some Letter Writers," by Huger Jervey; "The Letters of Gray, Walpole and Cowper," by Reed Moyer, and "Henry Parry Liddon," by Arthur R. Gray. Editorially are discussed the Carnegie pension fund for colleges and universities, the introduction of the tutorial system at Princeton, Columbia's modifications of the B. A. curriculum, literary commemorations, Schiller, Cervantes, Anderson, the death of Jules Verne and of Juan Valera, and the part of Southern writers in the nation's literature. Dr. John Bell Henneman is editor of the *Review*.

The commercial organizations of Norfolk are planning for the organization of the \$500,000 stock company of 2000 members to further the industrial development of the city by backing desirable industries that would locate there.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Forest Products.

It is estimated that the annual value of forest products of the United States is nearly \$575,000,000. The national forest service is aiming to secure statistics for publication in a report in the hope that co-operation with the industries concerned will make possible an annual report entitled "Forest Products of the United States." This proposed report would give by States, regions and species the cut and shipments of lumber, shingles, lath, cooperage stock, ties, posts and poles during the year, the stock on hand at the close of the year, and also the amount of wood used in the various industries for which wood furnishes the raw material, and the value of the products. It would also give information concerning the amount of stumpage in the hands of lumbermen in various regions, how long it will last at the present rate of cutting, the extent of damage by forest fires and other important matters relating to the forests of the country.

In order that the expense of collecting the statistics for this report shall not be excessive, nearly all the data will be obtained through correspondence. The names of proprietors of logging camps, saw-mills, pulp mills, woodworking plants and other manufacturing establishments for which wood is the raw material will be secured from the bureau of the census. At the close of the present calendar year a question card will be sent to each proprietor to be filled out with answers relating to his particular line of business. The replies will be held strictly confidential, and only State totals will be published.

This work is of such vital importance to the lumbermen that the National Lumber Manufacturers' Association, whose members produce approximately one-third of the entire lumber output of the United States, will co-operate with the forest service in the collection and compilation of the statistics in so far as they deal with lumber and shingles, as to cut, shipments and stocks on hand, and for this purpose the association will open an assistant secretary's office in Washington this autumn.

In announcing the plan to the members of the affiliated associations Secretary Geo. K. Smith said:

"The announcement is made at this time in order that all members of affiliated associations may prepare themselves to answer these questions when asked, and that they will take personal interest in seeing that their friends and neighbors, who are manufacturing lumber and shingles, but do not affiliate with any manufacturers' association, support this movement and make it a pronounced success. I feel sure that every member will realize the importance of this co-operation and give it his enthusiastic support."

Suggestions and communications concerning the proposed work will be gladly received by the office of forest products, forest service, Washington, D. C.

Messrs. Woodson & Graves.

Dealers in lumber who may be in a position to take Southern mill products for handling are invited to note that Messrs. Woodson & Graves of Lynchburg, Va., are catering especially to dealers. This firm has exceptional facilities for furnishing planing-mill products, notably in Georgia and North Carolina pine. It was formed recently and began business in May, but is composed of men who have had years of experience in the lumber trade and are aiming to build up a large trade in flooring, ceiling, siding, etc.

Messrs. Woodson & Graves have ample facilities for making prompt shipments to any part of the country, and are prepared to correspond with dealers seeking stock or with mills wanting to dispose of their product, as the entire output will be contracted for if desired. A pocket lumber scale which is conveniently arranged for ready use and has a slate memorandum space on which to place notes is issued by the firm, and will be sent to the trade sending requests.

Naval Stores.

The Catahoula Naval Stores Co., recently incorporated with a capital stock of \$50,000, is now making active preparations for working a tract of approximately 200,000 acres of long-leaf yellow-pine timber which it owns in Northern Louisiana. During the coming season about 225,000 boxes will be worked, and if operations are successful the capacity of the plant will be largely increased next season. Operatives' houses will be erected at Trout, La., and stills to have a capacity of 6000 barrels of rosin and 1000 barrels of spirits installed. The domicile of the company will be at Stamps, Ark., while the offices through which active operations will be conducted will be located at Hope, Ark. Officers are J. A. Buchanan, president; W. C. Brown, vice-president; R. L. Pritchard, secretary and treasurer.

Scarcity in Building Material.

Because of the heavy demand, locally and generally, for brick and lumber, the plants in the vicinity of Asheville, N. C., have been unable to manufacture more than enough to meet the requirements. This has caused the complaint in that section that by the winter there will probably be a scarcity of building material, especially of brick, as the weather conditions of the winter season make it impossible to manufacture the ordinary brick at that time. Lumber is not so scarce as brick, but building operations are active and all the yards are experiencing difficulty in filling orders, which fact makes local contractors deplore the possible necessity of having to pay a higher price for it by getting it from outside dealers.

Lumber Associations.

The Georgia Interstate Saw-Mill Association held its monthly meeting last week at Atlantic Beach, Fla., J. B. Conrad, vice-president for Florida, presiding. The price-lists, foreign and domestic, were advanced \$1 per thousand feet. The next meeting will be held at Savannah, Ga., on September 19.

At a meeting of the North Carolina Pine Association, held at Norfolk, Va., Thursday of last week, a committee was appointed to consider the consolidation with the South Carolina Association, which has already appointed a similar committee. The North Carolina Pine Association will receive the report of its committee on August 18, and will take action on the matter.

Establishing Saw-Mill.

Reports from Nacogdoches, Texas, state that John Arthur and Adam Carraway are arranging to establish a saw-mill at Woden, Texas, which is about 10 miles from Nacogdoches. The mill is to have a capacity of 50,000 feet per day, and will be easily accessible to an abundant supply of timber.

Jacksonville's Trade.

The total shipments of lumber from Jacksonville, Fla., for July, 1905, amounted to 15,024,684 feet, of which 13,708,108 feet were shipped to coastwise ports and 1,316,576 feet to foreign ports. Included in these shipments were 32,168 crossties. In addition to the lumber and

crossties there were shipped also 32,368 barrels of naval stores and 1,325,300 shingles to coastwise ports and 14,500 to foreign ports. The above figures represent only the shipments by water, no record being had of the amount of lumber hauled by the railroads.

Turpentine Orchard.

It is reported from Orange, Texas, that M. L. Curry of Georgia has closed negotiations with Alexander Gilmer of the Alexander Gilmer Lumber Co. for the establishment of a turpentine orchard on a tract of 30,000 acres of pine land owned by Mr. Gilmer. The property is located 14 miles north of Jasper, Texas, and work of erecting warehouse, commissary, etc., will begin next month. As soon as the frost sends the sap down several thousand trees will be tapped and the manufacture of turpentine will begin in the spring.

Saw-Mill Completed.

The saw-mill of Messrs. Deering, Frank & Lewis, located near Hopkinsville, Ky., has been completed and will begin running on full time as soon as a supply of logs can be obtained. The firm has already purchased enough timber to keep the mill in operation one year, and is still buying timber rights and lands. For the present only rough lumber will be sawed, but as the business develops the plant will operate along additional lines, including the quarter-sawing of oak.

Lumber Notes.

Permits for buildings estimated in value at \$73,160 were issued in Macon, Ga., for the month of July.

The steamship Wavelet cleared from Port Arthur, Texas, with a cargo of 2,600,000 feet of prime lumber and saps for Rotterdam. The cargo was loaded by F. E. Howard Newcomb.

Messrs. James H. Bryan, J. B. Mumgardner and associates have incorporated the Pee Dee River Lumber Co. of Bristol, Tenn., with a capital stock of \$100,000. Main offices will be maintained at Bristol, while the principal operations of the company for the present will be in South Carolina.

Building permits to the number of 206, representing an estimated value of \$408,805, were issued from the building inspector's office at Louisville, Ky., during July, 1905. The value of building permits issued in Knoxville, Tenn., for the same month is placed at \$207,600, while that of Chattanooga, Tenn., is \$107,150.

The monthly report of the building inspector of Washington, D. C., shows that during the month of July permits were issued for 378 building operations, total estimated cost of which was \$1,271,279. Of this amount \$445,535 represents the value of 100 dwellings, nearly all of which are in course of construction.

Portland Cement Works.

A Portland cement plant will be located at Summittville, Tenn., by Messrs. R. T. Valkenburg, O. W. Corbett and associates of Nashville, Tenn. They have incorporated the Tennessee Lime & Cement Co. for the purpose, placing the capital stock at \$25,000, with privilege of increasing to \$125,000. A tract of 335 acres of land has been purchased, and in establishing the plant the company will utilize a rock-crushing plant and limekilns, which were purchased some weeks ago. It is proposed to equip the cement plant for a daily capacity of 500 barrels and increase the daily output of the present limekilns to 1000 bushels. The company will have warehouses, office building and other structures. These will probably be erected, and C. L. Hutchison is to be the architect for the company.

TEXTILES

The Gray Manufacturing Co.

Steady progress is being made on the construction of the mill buildings of the Gray Manufacturing Co. of Gastonia, N. C., and the structures will probably be completed by October. This will permit the installation of the mechanical equipment by December 1. There will be 10,240 spindles installed for the production of fine yarns, 40s to 80s, and possibly finer than that; product to be in single and ply skeins, warps, cones and tubes. The power plant will consist of the latest pattern of Westinghouse-Parsons steam turbine generator directly connected and machinery to be driven by induction motors; boilers to be built by the Babcock-Wilcox Company of New York. The buildings and machinery will cost about \$175,000. The mill will employ 100 operatives, and the output per week will amount to 10,000 or 12,000 pounds. George A. Gray is president and treasurer of the company. Other details regarding this enterprise were given when the company organized some months ago. Stuart W. Cramer of Charlotte, N. C., is the architect in charge.

The Blue Book, Textile Directory.

The eighteenth annual edition, 1905-1906, of the Blue Book, Textile Directory, has been issued, showing nearly 500 new mills added to the work during the previous year.

All features of the work have been enlarged, and hundreds of additional dealers added in the various lines covered, the textile maps being revised up to date as usual.

A specially-engraved map of Philadelphia has been added to the travelers' edition.

The Blue Book contains all textile manufacturers in the United States and Canada (including in the office edition a classified directory of the cotton and woolen mills and a directory of textile-mill supplies, covering the machinery, chemical and dye-stuff manufacturers), with commission merchants, yarn dealers, etc., and these, in connection with its many pages of specially-engraved maps, make it a trade work of the highest order.

The Davison Publishing Co., 401 Broadway, New York, is the publisher.

Additional Capital Readily Secured.

The Willard Bag & Manufacturing Co. of Wilmington, N. C., which was established in its present form in 1893 with a paid capital of \$5000, which was subsequently increased to \$20,000, has recently issued additional stock, making the capital \$50,000. Mr. E. Payson Willard, secretary and general manager of the company, informs the MANUFACTURERS' RECORD that outside interests were invited to work with the company, and it takes the quick response to its invitation as a most decided evidence that capital is becoming more and more interested in Southern industrial development and has confidence in the future. Additional machinery has been installed giving the plant nearly 200 machines on overalls.

To Refit the Mill.

An authoritative statement has been received by the MANUFACTURERS' RECORD relative to the proposition for establishing a large cotton mill in Nashville, Tenn., the project which was referred to last week. The Tennessee Manufacturing Co. property has been purchased by Messrs. W. R. Odell of Concord, N. C.; Joseph H. Thompson, Jo B. Morgan and others of Nashville, Tenn., and they will receive possession as soon as the titles have been pronounced satisfactory. Their plan is to expend from \$350,000 to \$400,000 in refit-

ting the mills with modern spinning and weaving machinery, but no further details can be announced at this time. Mr. Odell will be president, and Mr. Morgan, secretary.

An Addition Completed.

The Exposition Cotton Mills of Atlanta, Ga., has recently completed the addition which it planned and began work on last fall. Its new building is two stories high, 100x275 feet, and the new machinery includes 8000 spindles with all the complementary apparatus and looms. The product of the new addition will be taken from 52-inch Northrop looms capable of weaving either wide sheetings or drills. It was previously reported that about \$150,000 was to be the cost of the betterments. The looms were supplied by the Draper Company of Hopedale, Mass.

A \$100,000 Addition.

At a meeting of the directors of the Swift Manufacturing Co. of Columbus, Ga., held during the past week, it was decided to expend from \$75,000 to \$100,000 to enlarge the company's plant. There will be a four-story addition erected to the main building, and in this will be installed about 5000 spindles. The new machinery will be operated partly by electricity and partly by steam-power from the company's engine. The company has an equipment of 13,075 spindles and 423 looms at present. Details regarding the betterments are now being determined.

The German-American Mill.

Active construction work has begun on the German-American Company's mill at Spray, N. C., details of which were previously stated in the MANUFACTURERS' RECORD. Twenty carloads of brick have arrived and the foundation for the building has been completed. This will be a one-story structure arranged for doubling in the future, and the textile equipment is to include 12,000 spindles and 360 looms. The company organized several months ago, and has a capital stock of \$500,000. Mr. George A. Mebane and associates are the principals.

The Dixie Mills Co.

The Dixie Mills Co. of Paducah, Ky., reported at length last week, will install 43 additional knitting machines, and contract for this equipment has been awarded. Contract has also been awarded for a new engine, and a two-story addition 50x60 feet is being erected. When the improvements are completed the present output of 700 dozen pairs of seamless hosiery will be increased to 1000 pairs.

Textile Notes.

The Gaston Manufacturing Co. of Cherryville, N. C., has declared an annual dividend of 10 per cent.

The Mandeville Mills of Carrollton, Ga., has decided to issue additional stock to the amount of \$40,000.

The Olympia Cotton Mills of Columbia, S. C., will hold a meeting on August 26 to consider increasing capital stock to \$3,000,000.

The Central Cotton Mills of Griffin, Ga., will have an equipment of 150 25-harness dobby looms, not 125, as was at first stated. The other details regarding this enterprise were reported two weeks ago. The company will effect organization and elect officers this month.

Messrs. W. B. Munson, J. B. McDougal, S. P. Archer and J. R. Handy of Denison, Texas, have incorporated the Denison Cotton Mill Co., with capital stock of \$150,000, for manufacturing cotton goods. They will utilize the old Denison Cotton Mills, which Mr. Munson purchased some months ago.

COTTONSEED

The Cotton-Oil Market.

[Special Cor. Manufacturers' Record.]
New York, August 8.

The cotton-oil market during the week just closed assumed a position of strength unequaled during the present season. Careful investigation discloses the fact that this condition is the natural outcome of favoring trade developments varied in their character, and which cannot be attributed to market manipulations. Domestic and foreign inquiries indicate that within the next few months heavy inroads will be made on local and new-crop stocks, circumstances which cannot be otherwise than encouraging to mill men. The recent advance in pure lard has turned packers' attention to cotton oil for compounding purposes, and already a number of important deals have resulted as a consequence. Soapmakers here and abroad give evidence of their needs with regard to cotton oil, although from different standpoints. The advance in linseed oil in Great Britain will have the effect of increasing cotton-oil values as a soap factor, the situation being accentuated by the advancing position of the foreign tallow market. It is clear that the chief holders of cotton-oil stocks, two New York and one Cincinnati concern, take an optimistic view of prospective market conditions in their desire to clean up available consignments, while with regard to futures, and before present developments were fully realized, contracts aggregating 60,000 barrels of oil in the form of sales were made, September, October and November shipments. Good inquiry from primary sources is reported for speculative account, although ordinary buyers display unusual care, due to the leading interests referred to endeavoring to control the market. Mills as a whole are refusing to sell new-crop oil at prices offered. Packers at the moment offer 27½ cents for bleaching oil New York and Chicago, bulk, but from 28 to 28½ cents is asked. In like manner soapmakers in their offers fail to come up to price set by holders, 26½ cents, although a few transactions are reported at the higher figures named in both cases. Cable advices from Marseilles are to the effect that the large consumers are buying cotton oil at 48 francs, with light stocks on hand, although but a short time ago they were sellers at 47 francs, a circumstance which will be well for the American export trade to take note of. Winter oil advanced during the week two cents, while the speculative activity displayed may be attributed in part to the prediction of a 10,000,000-bale crop. Yellow and butter oils are held on a basis of 31 to 31½ cents, 8000 barrels having been secured at these prices, September shipment. At the close the following prices prevailed: Crude in tanks, new crop, 23 to 24 cents; for forward delivery, prime summer yellow, 31 to 31½ cents; spot prime summer yellow, 30 to 30½ cents; white oil, 32 cents; prime winter yellow, 32 cents; butter oil, 32 cents; salad oil, 32 to 34 cents. Cable advices from Hull: Refined cotton oil firm at 17s. 6d. Prime cake is quoted New Orleans at \$27.50 per ton of 2240 pounds, and prime refined oil at 27½ cents and crude 23 cents. Arrivals in New York during the week, 2120 barrels.

Cotton Oil at Marseilles.

Regarding the outlook for cotton oil at Marseilles, France, United States Consul Skinner reports:

"The imports of American and other cotton oil and oilmaking material received at Marseilles during the first six months of 1905 confirm the expectations expressed in a previous report. The total

receipts of oilmaking material received during the six months amount to 237,236 tons, against 278,638 tons during the same period last year. This fact, together with the reports in regard to a shortage in the American cotton crop, have stiffened the local market, which at various times during the first half-year has resold American cotton oil to American buyers, taking the higher profit resulting from the unusual situation. While the market will doubtless have its ups and downs, the requirements of consumers will probably compel the continued importation of American oil and make the receipts for the year very much higher than anything in recent experience."

The imports of cottonseed increased from 7420 tons in the six months of 1904 to 7593 tons in 1905. In the same period the arrivals of cottonseed oil aggregated 24,761 tons, against 10,842 tons for the first six months of 1904. Of this the United States contributed 24,705 tons in 1905, against 9478 tons in 1904.

Cotton-Oil Mill Sold.

Negotiations have been completed in Houston, Texas, transferring the properties of the Southern Cotton Oil Co. to the Fidelity Cotton Oil & Fertilizer Co., of which James D. Dawson of Augusta, Ga., is president. The transfer includes the main plant of the Southern Cotton Oil Co., located at Houston, beside other properties, among which are houses, leases, etc., located in other parts of Texas. It is understood that the consideration was \$400,000. Active operations are expected to begin within 30 days under the supervision of F. Dawson, who will be the general manager of the properties. Mr. Philip R. Lamar of Augusta, Ga., is the secretary and treasurer of the company and a member of the board of directors.

Southern Cotton Oil Officers.

The Southern Cotton Oil Co. has elected the following officers for the ensuing year as directors: John B. Dennis, L. W. Haskell, N. S. Meldrum, Nelson Robinson, Samuel Spencer, Henry Walters, J. N. Boyd, S. T. Morgan, T. C. Williams, Jr., Richmond, Va.; J. B. Duke, Somerville, N. J.; R. T. Reynolds, Winston, N. C.; E. T. Stotesbury, Philadelphia; Geo. W. Watts, Durham, N. C.

The directors elected the following officers: President, S. T. Morgan; vice-president, L. W. Haskell; secretary and treasurer, G. E. Coles; executive committee, S. T. Morgan, L. W. Haskell, N. S. Meldrum, Nelson Robinson, E. T. Stotesbury.

Reworking Phosphate Rock.

It is stated that the Bluegrass Phosphate Co. of Mt. Pleasant, Tenn., has constructed a washer and dryer in its phosphate field by which it is reworking the rock and dirt thrown back into the phosphate beds when mining operations were first begun. The net profit on this feature of the work is said to be \$2 per ton.

Fertilizer Company.

Messrs. W. M. Pitts, Lee Alexander, C. E. Gholston, J. G. McAndrews, S. C. Cowan, Ernest L. Blue, Hugh Foster and others have incorporated the Union Springs Fertilizer Co. of Union Springs, Ala., with a capital stock of \$15,000. It is the purpose of the company to manufacture and deal in fertilizers.

Leroy Springs of Lancaster, S. C., states that there is no truth in the reports that he contemplates building a cotton mill at Cheraw. The proposition has not received any consideration whatever.

The assessed value of railroads in North Carolina is \$69,573,334. In 1891 the assessed value was \$12,360,000.

MECHANICAL

New Type of Crane.

The Case Manufacturing Co. of Columbus, Ohio, since engaging Charles H. Tucker of Milwaukee, Wis., as chief engineer, has almost completely revolutionized the construction of its product. Accompanying illustrations show one of the new-type 10-ton crane and controller recently installed in the Marion (Ohio) Steam Shovel Co.'s plant.

The successful operation of a crane is due largely to the brakes, and the Case Company has designed both the motor and load brakes with this point in view, also simplicity in construction to facilitate repairs. The Case load brake is a modified type of the old Weston or screw brake. By this revised form a double friction is provided, with the ratchet and all parts

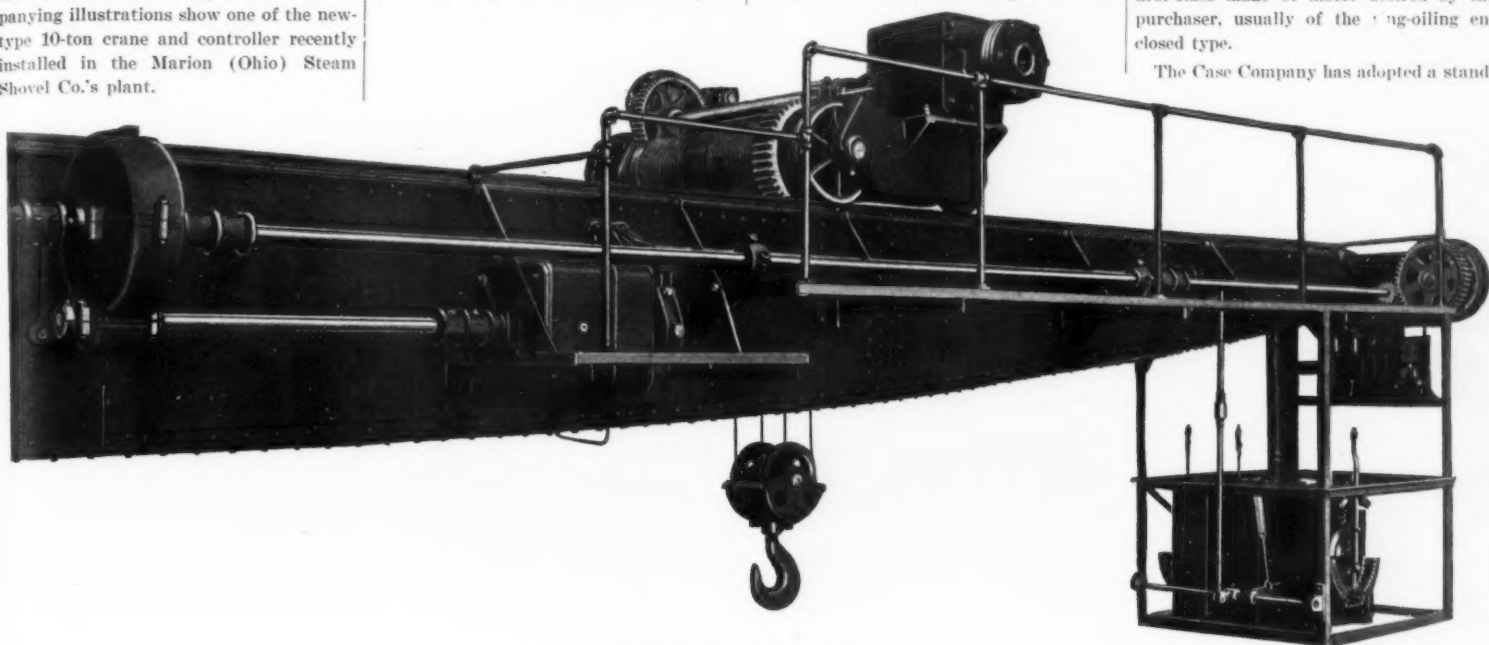
hour's time, and not only the double friction is obtained, but when one side of the friction discs are worn down, they are reversed and readjusted, which gives double life to the wearing parts. This brake runs dry, and a maximum amount of friction is obtained with a minimum amount of parts.

All cranes are provided with a foot brake attached to the bridge armature

the self-oiling M. C. B. type may be removed without jacking up the crane, and after the bearings are worn to any extent all that is necessary is to take up the wear with liners.

The motor equipment supplied upon these cranes is General Electric, Westinghouse, Allis-Chalmers-Bullock, or any first-class make of motor desired by the purchaser, usually of the self-oiling enclosed type.

The Case Company has adopted a stand-



NEW TYPE 10-TON CRANE.

The Case engineers believe the factor of safety should be about double in all the wearing parts of a crane, not particularly as a matter of safety, but to give the user the benefit of the additional durability acquired.

In the new "Case" construction they have practically cut the maximum stresses in half, particularly in the parts of the machine which have to stand the brunt of the abuse. In other words, the Case Manufacturing Co. has doubled up the factor of safety in its axles, shafts, gears, tackle, brakes and all wearing parts of the crane. With these features, combined with strictly new and up-to-date design, gotten out with a view of accessibility and ease in repairs, the machine is something that any crane user cannot afford to overlook.

In the construction of the new type of cranes the hoisting mechanism is placed on top of the body of the trolley, namely, the trolley sides and cross-girt, and arranged in such a manner that any shaft, brake, gear or pinion can be removed without disturbing any other part of the mechanism. This is a desirable feature, and coupled with the simplicity of design, particularly in the motor brake and load brake, the enclosing of all high-speed gears for the hoist, bridge and trolley drive in oil-tight casings, the elimination of all overhung gears and pinions and the low stresses maintained, makes up a trolley that will insure long life, perfect ease in handling the heaviest load and a minimum repair bill.

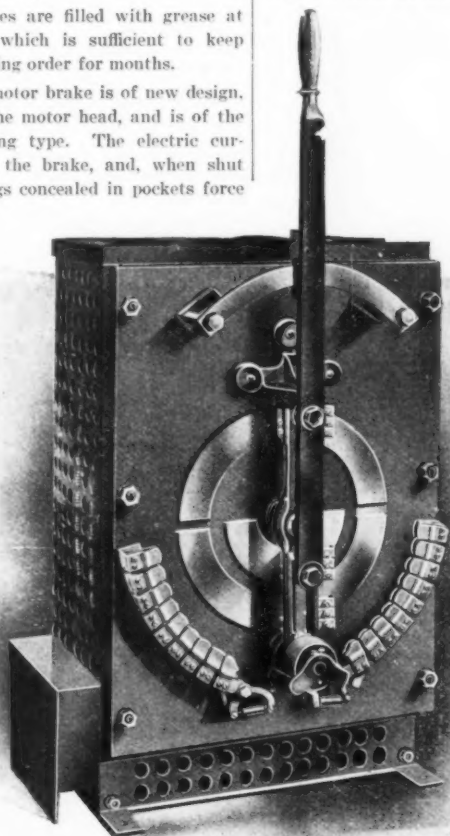
The heavy steel cross-girt of ample proportions holds the working parts of the trolley in perfect alignment and insures the highest possible efficiency. The trolley sides are bushed and provided with caps for the trolley truck-wheel axles. The caps are placed at such an angle that the wheels and axles may be readily removed without jacking up the trolley. The trolley-drive motor and gearings are very accessible, and may be removed with a minimum amount of labor; no pinions or gears to be driven off their shafts before they can be removed from the trolley. All shafting is turned and ground to gauge, and all gears and pinions bored and fitted in a perfect manner.

kept very large. In doing this the pressure has been reduced per square inch on the friction surfaces to about one-quarter of that of the average make of brake, and a friction material is used which will not cut or bind or slip.

These brakes are filled with grease at the factory, which is sufficient to keep them in working order for months.

The Case motor brake is of new design, attached to the motor head, and is of the magnetic-spring type. The electric current releases the brake, and, when shut off, the springs concealed in pockets force

shaft of the clamshell type, babbit lined, operated with a toggle joint and foot lever. The guides keep the brake from dragging except when applied by the operator, and provision is made to take up any wear should it occur at the cage. This form of



ELECTRIC CONTROLLER FOR 10-TON CRANE.

the steel brake armature against the wood friction plates. The outside retaining head prevents the end reaction exerted on the armature shaft from injurious wear on the ends of the motor bearings.

The wood frictions are easily inserted at any pattern or machine shop in a half-

bridge brake was adopted after several years of experience with the strap brake lined with leather or wood blocks.

These foregoing points of construction are embodied in connection with the well-known "Case crane and controller patents." The bridge truck-wheel bearings of

ard shaft extension at each end of its motors, no matter what make, so that a 10-horse-power trolley-motor armature shaft can be used on any motor of the same horse-power and manufacture. This same rule applies to all sizes. It is also the rule of this company to keep the motors as far as possible to same size already in use.

"Case controllers" are patented, and provided with a blow-out coil and quick-break and roller-knife contacts. These features insure extra long life, and all wearing parts are designed with a view to rapid repairs, so that a minimum amount of time will be taken in replacing rheostat coils or controller contacts.

The limit switch is of Case design and entirely automatic, being of the circuit-breaker type, located in the cage. When the bottom block approaches the upper limit of run the contactor blows the circuit-breaker and opens the circuit until the controller is thrown to central or lowering position. When hook is in this position it is only possible to lower, as any attempt to hoist will simply blow the circuit-breaker, which repeatedly replaces itself, being entirely automatic.

The electrical equipment is made strictly in accordance with the underwriters' rules, and is made in a first-class manner, with ample carrying capacity.

Westinghouse Railway-Type Circuit-Breaker.

The street-railway circuit-breaker shown in the accompanying illustration combines in one piece of apparatus a safety device and main switch, as it automatically opens the circuit on overload or short circuit, and can be operated by hand to disconnect the car from the trolley circuit. It is intended to be installed over the motorman's head in the place usually occupied by the canopy switch, but may be placed elsewhere if desired. It can be quickly closed, thus avoiding the inconvenience and delay incident to replacing a fuse.

This circuit-breaker is intended for direct-current use, and is made for capacities of 60, 100, 150 and 200 amperes, with a range from 90 per cent. to 225 per cent. of normal rating. The mechanism is mounted on a cast-iron base and enclosed

by a pressed-metal cover. The handle for resetting projects conveniently from the side of the case, and the plunger for tripping by hand extends through the cover, and is provided with a composition handle for the hand to strike against. The resetting handle is connected to the switch lever through a compression spring, which insures a firm pressure and good contact regardless of the natural wear to which the parts may be subjected in service.

The arc is broken in a powerful magnetic field which effectually opens the circuit under the most severe conditions. The contacts on which the arc occurs are surrounded by a shield of insulating and arc-resisting material, which prevents the arc from being communicated to any other part of the breaker. The contact is made of copper strips separated by spaces, each acting independently of the others, and in this way a slight irregularity or burr will affect the individual strip only, without disturbing the other strips, as would be the case in a brush made in the usual way with laminations without spaces. An auxiliary contact at the end of the switch lever, which can easily be removed and replaced by a new one, serves as an arcing tip. A feature of this breaker is the accessibility when the cover is removed.

The current adjustment is made by means of a knurled-head screw, which engages a nut attached to a coiled spring.



WESTINGHOUSE RAILWAY-TYPE CIRCUIT-BREAKER FOR DIRECT-CURRENT SERVICE.

which, in turn, opposes the pull of the magnet on the armature. A trigger holds the switch in the closed position, and is in range with a projection on the armature of the tripping magnet. When the armature is drawn down by an excessive current in the coil, this projection strikes the trigger and releases the switch lever, which is opened instantly by a coiled spring.

The Westinghouse Electric & Manufacturing Co. of Pittsburg manufactures this circuit-breaker.

Another Sturtevant Generating Set.

The B. F. Sturtevant Company of Boston, Mass., has been developing in a comparatively quiet way a very complete line of small and medium-size generating sets of exceptionally high efficiency. Among these is a series running from $7\frac{1}{2}$ to 50 kilowatt of the form illustrated herewith.

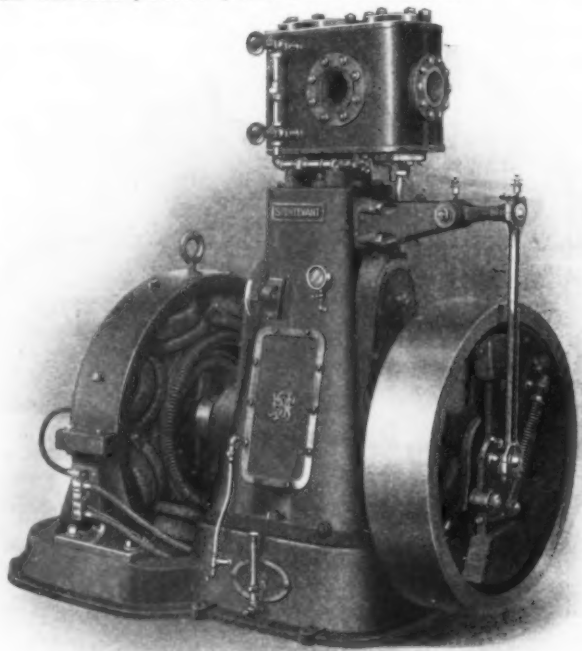
The engine of the set illustrated is of the single vertical enclosed automatic type, with cylinder nine inches in diameter by eight inches stroke.

The generator, like all others in its class, was specifically designed by the B. F. Sturtevant Company for direct attachment to its respective size of engine. Its output is secured at 350 r. p. m. with 90 pounds of steam. The shaft is three and seven-sixteenths inches in diameter, the crankpin measures four inches in diameter by four and one-half inches in length, and the complete set weighs 4900 pounds.

The cylinder is fitted with balanced pis-

ton valve, is thoroughly insulated with magnesia, and covered with Russia iron, bound with polished iron bands.

A watershed partition between the cylinder and the frame prevents the drip of water from the cylinder coming in contact with the oil in the main body of the engine. This watershed partition permits



ANOTHER STURTEVANT GENERATING SET.
Series Running from $7\frac{1}{2}$ to 50 K. W.

of access to the piston-rod stuffing-box while the engine is in operation. The frame is fitted with doors on either end and on the sides for accessibility to the reciprocating parts when adjustment or repairs are required.

The lubrication of all bearing surfaces

what is more important, it maintains under pressure a film of oil between the two bearing surfaces which absolutely prevents their contact. Practically the friction is thus eliminated and high mechanical efficiency is secured, ranging from 92 to 95 per cent., according to the size of the engine.

The regulation is accomplished by means of a Rites flywheel inertia governor, simple in construction, durable and reliable in operation. The speed variation is limited within 2 per cent. between full load and no load.

The crosshead is of cast iron with ad-

arate sections, the compound winding forming one and the shunt winding forming the other.

The armature is of the barrel-wound toothed hollow-drum type, the windings being of the coil or bar-wound type.

In the construction of the commutator the best drop-forged copper is used, thoroughly insulated by selected amber mica. Self-adjusting socket-type shunted brush-holders are used. The spring is not called upon to carry any current; as a consequence there is no danger of its losing its tension from the heating. Soft carbon brushes are employed.

The test for dielectric strength (or breakdown) is made with a pressure of 1500 volts alternating E. M. F. for a duration of one minute with a generator having a capacity of seven kilowatts.

The heat rise of the generator will not exceed 40° C. for a four-hour full-rated-load run. An overload of 25 per cent. can be carried for two hours without the temperature rise exceeding 50° C., and a momentary overload of 100 per cent. without flashing.

The Hinton Hotel.

An accompanying illustration presents a view of the Hinton Hotel to be erected at Hinton, W. Va., after plans and specifications by Frank P. Milburn of Columbia, S. C. The basement walls will be of concrete, the upper walls being of a pink shade of brick with white brick trimmings. There will be four stores on the front, the center part being utilized for the lobby, which will be handsomely finished in marble, with wrought-iron stairway, etc. In addition to the parlors, foyers, dining-room, kitchen, etc., there will be 58 bedrooms. All rooms on the second and third floors have bathroom connections, the rooms on the top floor being provided with general bath and toilet rooms. Electric passenger and freight elevators will be used. The cost of the new structure will approximate \$50,000.



THE HINTON HOTEL, HINTON, W. VA.—A \$50,000 STRUCTURE.
Plans by Frank P. Milburn of Columbia, S. C.

is made absolutely positive by means of a pump and a piping system, which, in connection with relief and check valves and a pressure gauge, maintains pressure of about 15 pounds per square inch of oil on all main bearings of the engine while in operation. This system not only assures the presence of oil on all bearings at all times without constant supervision, but,

justable shoes, the connecting rod of forged steel with removable babbitted boxes, and the shaft of open-hearth steel, forged in one piece, with cast-iron counterweights bolted on.

The field frame of the generator is of cast iron with wrought-iron pole pieces and cast-iron shoes.

The field coils are made up in two sep-

Georgetown, S. C., celebrated last Saturday the arrival from Baltimore of the steamer George Weems, the pioneer vessel of a line to operate between Baltimore and Georgetown. On the same day the steamer City of Columbia, making her maiden trip from Columbia to Georgetown, arrived and shared in the hearty reception given the George Weems.

Steele & Sons' Pug Mill.

Grinding and tempering clay for making brick is a more important matter than is generally realized. The pug mill illustrated herewith will do this work effec-

tively. The air chamber is bur-nished, and all the other parts are silver gilt, aluminum painted.

A specially desirable feature is the new design of valves and valve boxes, which

are of bronze with leather face, and each valve has a separate valve cover just above it which screws into place. These valve covers each contain a rubber-cushion valve stopper, which contributes to a proper

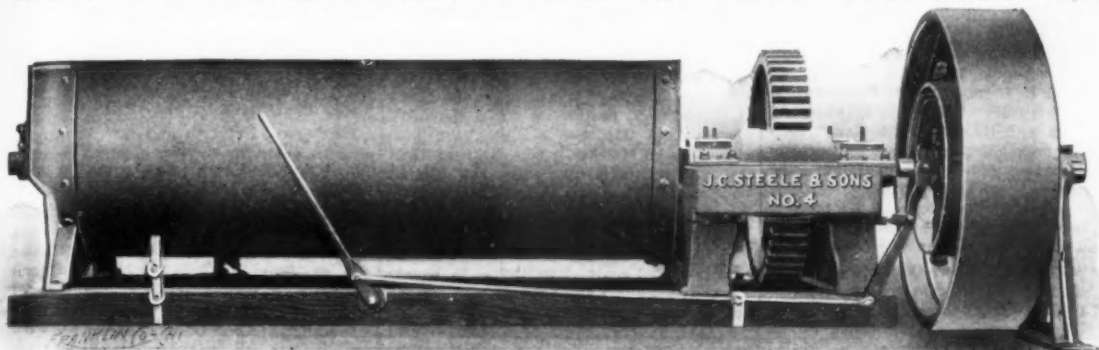
ing, producing a smooth, uninterrupted flow of water from the discharge. The pistons are of bronze with double-crimped hydraulic leather packing of a superior quality. The packings are specially treated by a process which renders them perfectly impervious to water and extremely durable.

The lifter is made in several different sizes, all fully described in a little pamphlet that the Goulds Manufacturing Co. of Seneca Falls, N. Y., issues for distribution. The Goulds Manufacturing Co. manufactures the water-lifter described.

The Liddell-Chambers Engine.

Having determined to build throttling engines in larger sizes than have been used in its well-known Liddell-Tompkins engine, the Liddell Company of Charlotte, N. C., began making such changes as would adapt that engine to such larger sizes, with the result that an entirely new design has been evolved.

This engine, the Liddell-Chambers, herewith illustrated, is intended for heavy

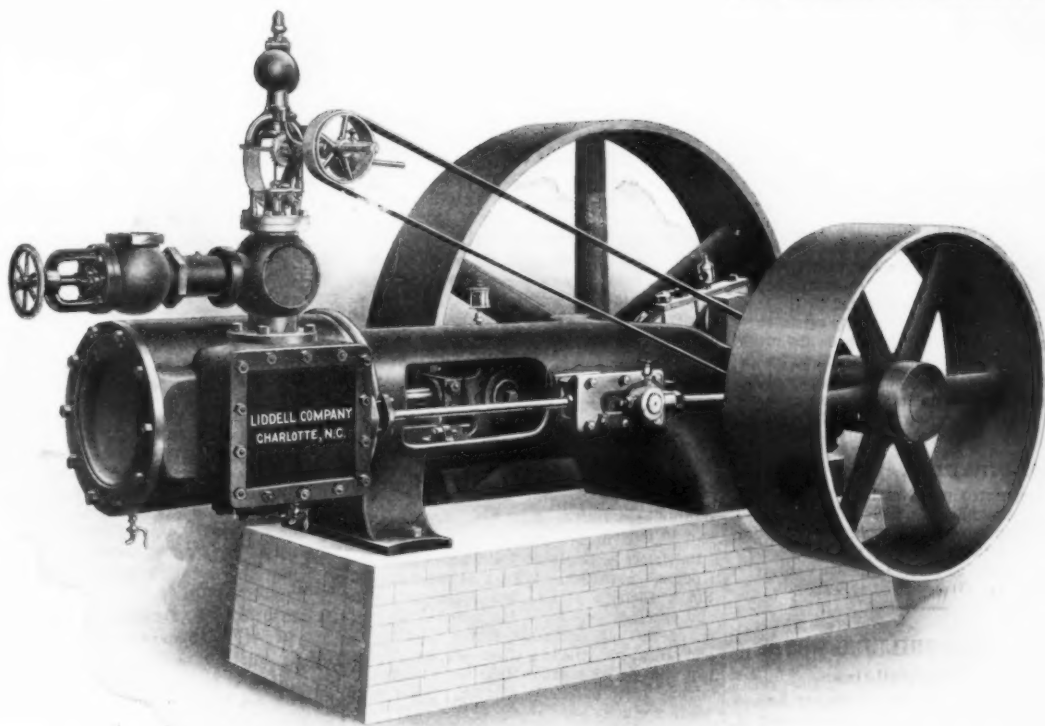


PUG MILL BUILT BY J. C. STEELE & SONS.

tively. It is known as No. 4, and is all iron and steel. Eight feet is the standard length of barrel, though it can be made any length. The shaft is four inches square steel fitted with adjustable blades. The frame is heavy and strong. The pinion is steel, pulley 12x48 inches, friction clutch. This machine has a capacity of from 40,000 to 75,000 bricks per day. It is built by Messrs. J. C. Steele & Sons of Statesville, N. C., who also build a No. 3 and No. 5, one smaller and the other larger than the one shown. Write the firm for information.

New Duplex Water-Lifter.

The new duplex bronze water-lifter, illustrated herewith, is offered as a decided improvement over any other construction for elevating water in dwellings, apartment-houses, hotels, clubs, etc., using city water pressure for the motive power. With this lifter cistern water can be pumped to an open tank in the attic or direct to the house service pipes, and in localities where city water has not sufficient pressure to reach the upper floors of the building the pump end can be connected to the city water, forcing it to the desired elevation. The lifter can be installed in such a manner as to be entirely automatic, if desired, so that the pump will operate only as the demands of the system may require. It can be so arranged that all the water used in the power end for pumping can be utilized instead of passing to the sewer. By connecting the exhaust from the power end to taps on the lower floors of the building, say to flush a closet or kitchen sink, and when water is drawn from these lower taps the lifter will operate until the predetermined pressure in the service pipes is reached, when it will stop. While it is



THE LIDDELL-CHAMBERS ENGINE.

seating of the valve and also makes their action entirely noiseless. The valves in the power end are of piston type, with double-crimped hydraulic leather packing, that are more durable than metal valves. They are very easily replaced; they are

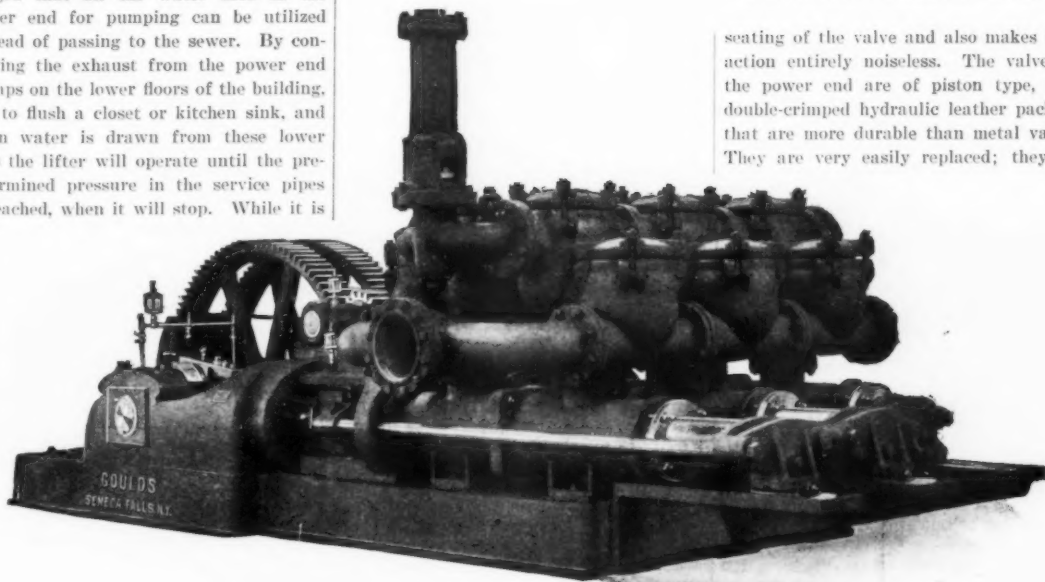
duty, and is fitted with pulleys of unusual weight. In its design the very best of talent was employed and a determined effort made to discard every possible source of trouble, and every improvement was added which actual tests show to be desirable. Some of the advantages may be enumerated as follows:

Bored guides, insuring perfect alignments; adjustable clamp crosshead, with extra large wearing surface; steel valve-stem guide; extra large crank; projecting plate to keep oil off of governor belt; connecting-rod boxes filled with best grade of anti-friction metal; crank made from solid steel forging and accurately balanced, and, as above mentioned, flywheels of the heaviest pattern.

This engine is built in sizes from 35 to 100 horse-power, and is recommended for all classes of heavy-duty work where an automatic or Corliss engine is not required.

The Gibbs Machinery Co. of Columbia, S. C., is special sales agent for the Liddell Company, and will furnish further information on the Liddell-Chambers engine.

Subscribe to the MANUFACTURERS' RECORD. Price \$4 a year, or six months for \$2.



NEW DUPLEX BRONZE WATER-LIFTER.

pumping water will be elevated to the attic tank. This lifter is a handsome piece of mechanism, all made of bronze, except the bedplate and center support, which is

provides for convenient and easy examination of all the valves in the pump and power end without disturbing the pipe connections. The valves in the pump end

also noiseless, and are particularly desirable in localities where the city water is muddy or contains gritty substances.

The two pump cylinders are double-act-

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from 'the MANUFACTURERS' RECORD.'

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and more attention than a mere circular.

BALTIMORE BUILDING NOTES.

Business Buildings.

Baltimore—Theater.—The Columbia Amusement Co., New York, has commissioned J. B. McElfatrik & Son, architects, 1402 Broadway, New York, to prepare plans and specifications for theater to be erected at southwest corner Baltimore street and Customhouse avenue. It is reported that the George A. Fuller Company, American Building, Baltimore and South streets, will erect the building.

Baltimore—Office Building.—A. L. Gorter and associates, 213 Courtland street, have commissioned Alfred H. Taylor, architect, Hanover Building, Fayette and Hanover streets, to prepare plans and specifications for a 12-story office building to be located on Water street near South street and extending through to German street. The building will front about 100 feet on Water street and about 17 feet on German street. Cramp & Co., Hanover Building, Fayette and Hanover streets; George A. Fuller Company, American Building, Baltimore and South streets, and Broderick & Wind, Equitable Building, Fayette and Calvert streets, are submitting estimates on the construction.

Baltimore—Apartment-house.—Further details have been obtained concerning apartment-house for Trimble Bros., 227 St. Paul street, to be erected at southwest corner Chase street and Guilford avenue; 11 stories, 90x152.3 feet; brick with granite base and terra-cotta trimmings; steel frame with concrete and terra-cotta fireproofing; slag roof; ornamental iron; interior marble; electric-generating plant; sanitary plumbing; heating system; two electric elevators. Cramp & Co., Hanover Building, Fayette and Hanover streets, and Broderick & Wind, Equitable Building, are among those estimating on the construction; Alfred H. Taylor, architect, Hanover Building, Fayette and Hanover streets.

Baltimore—Office Building.—Plans and specifications have been completed by Stoughton & Stoughton and W. D. Hunter, architects,

96 Fifth avenue, New York, for office building for Mrs. Margaret Mellor, 469 N. Marshall street, Philadelphia, Pa., to be erected at 107, 109 and 111 E. German street; seven stories, 65.1x70.5 feet; brick with granite base and terra-cotta and limestone trimmings; reinforced-concrete construction; slag roof; interior marble; fire-escape; electric wiring and fixtures; sanitary plumbing; heating system; two electric elevators. Cramp & Co., Hanover Building, Fayette and Hanover streets, are estimating on the construction.

Baltimore—Warehouse.—James G. Stanley, 1218 North Charles street, has awarded contract to Brady & Watters, 532 St. Paul street, for the construction of warehouse at 126 South Charles street; four stories, 17x55.7 feet; brick with stone trimmings; steel beams; electric wiring and fixtures; sanitary plumbing; heating system; elevator; cost about \$8000; T. George Carroll, architect, Continental Trust Building, Baltimore and Calvert streets.

Baltimore—Dwellings.—The Herbold Building & Construction Co., 632 West Lee street, will erect seven two-story dwellings, 11x38 feet, on Carroll street to cost about \$7000.

Baltimore—Carriage-house.—Jordan Stabler, Eutaw and Madison streets, has awarded contract to Brady & Watters, 532 St. Paul street, for the construction of carriage-house at 1110 Division street; two stories, 23.2x58 feet; cost about \$2500.

Baltimore—Store Building.—Isaac S. and Benjamin S. Goldsmith, 2127 Linden avenue, will erect store building at 26 East Baltimore street; three stories, 20x115 feet.

Baltimore—Dwelling.—George A. Blake, builder, 120 East Lexington street, will erect dwelling at 1203 Cathedral street; three stories, 20x54.6 feet; brick with limestone trimmings; tin roof; steam-heating system; sanitary plumbing; cost about \$3500; J. Appleton Wilson, architect, 36 Courtland street.

Baltimore—Warehouse.—H. Rosenheim & Son, 413 West Baltimore street, has awarded contract to Thomas B. Stanfield & Son, 109 Clay street, for the construction of an additional story on four-story building 22x64.6 feet at 413 West Baltimore street. A slag roof will be put on.

Baltimore—Business Building.—Wm. H. Hodges, architect, Wilson Building, 301 North Charles street, has prepared plans and specifications for a business building to be erected at northeast corner Monument and Howard streets; three stories, 23x108 feet; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; heating system; elevator.

Baltimore—Dwellings.—As all of the bids submitted for the construction were too high for dwellings for Joseph and David Hechinger, 808 Low street, to be erected at West Arlington, revised plans and specifications will be made by the architect, Louis Levi, Union Trust Building, Charles and Fayette streets, and new bids obtained.

Baltimore—Dwellings.—J. C. Davis, Jr., 220 North Holliday street, will erect 15 dwellings at Windsor avenue and 8th street; two stories, 15x60 feet; cost about \$18,000.

Baltimore—Warehouse.—Alfred H. Taylor, architect, Hanover Building, Fayette and Hanover streets, has prepared plans and specifications for warehouse to be erected at 208 East Lombard street and extending through to 207 Water street; six stories, 34x105 feet.

Baltimore—Warehouse.—Philip Joseph, 1628 McCulloh street, has awarded contract to J. H. Miller, 110 Dover street, for the construction of warehouse at 128 South Charles street; four stories, 50x18.9 feet; brick with stone trimmings; steel beams; slag roof; galvanized-iron cornices; sanitary plumbing; elevator; cost about \$6000; Henry Brauns, architect, 113 West Saratoga street.

Baltimore—Dwellings.—Harry E. Gilbert and A. C. Doyle, northeast corner St. Paul and Saratoga streets, will erect 23 dwellings on Walbrook avenue; two stories 14.6x55 feet; cost about \$35,000.

Baltimore—Dwelling.—B. W. Corkran, 1411 Eutaw Place, has awarded contract to Gladfelter & Chambers, 2672 Woodberry avenue, for the construction of dwelling at Roland Park; 2½ stories, 59x74 feet; brick with stucco exterior; slate roof; electric wiring and fixtures; sanitary plumbing; heating system; Ellicott & Emmart, architects, Union Trust Building, Charles and Fayette streets.

Baltimore—Dwelling.—Walter D. Focke, International Trust Co., 25 East Baltimore street, will erect dwelling at Roland Park (a suburb of Baltimore).

Baltimore—Church.—The trustees of the Lutheran Church of the Incarnation, Albert H. Studebaker, pastor, Horn's Hall, North avenue near Madison avenue, have purchased lot on Madison avenue, between Gold and Bloom streets, and will erect church building on the site, which is 148.6x130 feet. Architect has not as yet been selected.

Baltimore—Dwellings.—Andrew J. Wiegand and Harry E. Parkhurst, 413 St. Paul street, have awarded contract to Joshua E. Franklin, Culver avenue and Grindin lane, for the construction of 15 dwellings at Catherine and Lombard streets; two stories, 13.4x44 feet; cost about \$15,000.

Baltimore—Dwellings.—Felix Zion & Co., 1207 East Madison street, will erect 14 dwellings at Northwest and Monroe streets; two stories, 13.4x55 feet; cost about \$23,000.

Baltimore—Dwellings.—Edward J. Gallagher, 2638 East Baltimore street, will erect 14 dwellings at Luzerne and Fayette streets; two stories, 15x75 feet; cost about \$20,000.

Baltimore—Church.—St. Peter Claver's Catholic Church, Fremont and Pennsylvania avenues, will enlarge and reconstruct its church building. John T. Buckley, 916 Bolton street; John Stack & Sons, 250 W. Preston street, and J. J. Walsh & Son, 1525 Maryland avenue, are estimating on the work; George I. Lovatt, 420 Walnut street, Philadelphia, Pa., architect.

Baltimore—Warehouse.—The Terminal Warehouse Co., Bath and Pleasant streets, has awarded contract to Charles L. Stockhausen, National Marine Bank Building, Gay and Water streets, for the construction of storage warehouse on Constitution street; two stories, 136x248x252 feet; steel-frame construction with corrugated iron sides; slag roof; metal frames and sashes; four electric elevators; skylights; Owens & Sisco, architects, 14 West Lexington street.

Baltimore—Dwellings.—A. Parlett Lloyd, 227 St. Paul street, has awarded contract to Ignatius Smith, 203½ St. Paul street, for the construction of dwelling at Windsor avenue and 12th street; two and one-half stories; frame construction on stone foundation; electric wiring and fixtures; sanitary plumbing; heating system; cost about \$7000. Mottu & White, architects, 328 North Charles street.

Manufacturing Buildings and Other Enterprises.

Baltimore—Telephone Exchange.—The Chesapeake & Potomac Telephone Co., 711 St. Paul street, has commissioned J. E. Sperry, architect, Calvert Building, Fayette and St. Paul streets, to prepare plans and specifications for the construction of one additional story on main building and an addition in the rear of exchange on Madison avenue near Robert street. Additional switchboards will be installed, increasing its capacity to 12,000 telephones.

Baltimore—Drug-manufacturing Plant.—The Caffeno Drug Co., Mosher street and Maister avenue, manufacturer of drug specialties, has filed certificate increasing its capital stock from \$50,000 to \$100,000.

Baltimore—Clothing Factory.—Albert L. Frank of Schloss Bros. & Co., clothing manufacturers, Poca and Baltimore streets, has commissioned Louis Levi, architect, Union Trust Building, Charles and Fayette streets, to prepare plans and specifications for a clothing factory to be located on North High street; structure to be four or five stories high, 72x165 feet, with an addition 19x101 feet.

Baltimore—Brass Foundry.—Edro Richardson, brass founder, 316 North Holliday street, has awarded contract to James C. Smith, 1601 North Broadway, for the construction of building at 315 North street; three stories, 28x82 feet; brick with bluestone trimmings; steel beams; slag roof; Henry J. Tinley, architect, Hoffman Building, 11 East Lexington street.

Baltimore—Laundry and Boiler-house.—The Kelso Home for Orphan Children, Liberty road and Forest avenue, has awarded contract to C. A. R. Euson, 319 North Charles street, for the construction of laundry and boiler-house; two stories, 29x48 feet; reinforced concrete construction; slag roof; kalamain doors; metal frames and sashes; electric wiring and fixtures.*

Baltimore—Filing Devices.—The Blanchard Filing Device Co. has been incorporated with an authorized capital stock of \$100,000 for

dealing in novelties and binding materials by Frank Blanchard, Jr., 1727 Hopkins avenue, east; Wm. R. Pohler, 1153 East Baltimore street; Martin G. Billingslea, Wm. G. Speed, 102 West Lombard street, and Robert L. Gill, 215 St. Paul street.

Baltimore—Carriage and Toy Factory.—Further details have been obtained concerning factory for the Carriage & Toy Co., Calvert and Saratoga streets, to be erected at southeast corner Fremont and Lombard streets; five stories, 71.7x171.6 feet; brick with granite base and stone trimmings; steel girders; cast-iron columns; slag roof; galvanized-iron cornice and skylights; metal frames and sashes; sanitary plumbing; heating system; two elevators; electric work not in contract. An alternate bid will be made on fireproof construction. J. H. Miller, 110 Dover street; John A. Sheridan Company, 321 North Holliday street; Morrow Bros., 212 Clay street; E. D. Preston, 140 West Fayette street; James F. Farley, 207 North street, and Frederick Decker & Son, 1209 East Biddle street, will have the plans for the purpose of submitting estimates until August 11, when they will be returned and distributed to R. H. Frazier & Sons, 220 St. Paul street; J. H. Walsh & Bro., 321 Clay street; Henry Smith & Sons Company, 116 South Register street, and Richmond H. Ford & Co., Equitable Building, Calvert and Fayette streets; all bids to be in about August 13; J. E. Lafferty, architect, Builders' Exchange Building, 2 East Lexington street.

Baltimore—Straw-hat Factory.—Townsend-Grace Company, 209 West Fayette street, will reconstruct four-story building on Garrett street in the rear of its present plant. E. D. Preston, 140 West Fayette street; Morrow Bros., 212 Clay street, and Israel Griffith, Builders' Exchange Building, 2 East Lexington street, are estimating on the work; Haskell & Barnes, architects, Central Savings Bank Building, 3 East Lexington street; bids to be in August 12.

Baltimore—Button Factory.—The Alma Manufacturing Co., manufacturer of buttons, 611 to 627 South Monroe street, will erect three new buildings at its plant; one to be three stories high, 64x203 feet, one to be one story high, 35x82.6 feet, and a one-story power-house. Estimates on construction have been received.

Baltimore—Pressed-steel Pole Plant.—It is reported that the Pressed Steel Pole Co. of Pittsburg, Pa., is seeking a site through its attorneys, Steuart & Steuart, 213 St. Paul street, for the establishment of its steel pole plant in Baltimore. It is proposed to place the capital stock of the company at \$125,000.

Baltimore—Pattern Shop.—It is reported that the Central Foundry Co. is arranging for the erection of a pattern shop at its plant at Dundalk, Md. (near Baltimore); three stories, 50x100 feet; brick with stone trimmings; reinforced-concrete columns, girders and floors.

Subbids Wanted.

Mention of contractors wanting subbids on construction work and material will be found, when published, in the "Machinery Wanted" column on another page under the heading of "Building Equipment and Supplies."

ALABAMA.

Anniston—Mineral Developments.—The Calhoun Mineral Development Co. will be organized for the purpose of sinking deep wells to ascertain the mineral resources of Calhoun county. Capital stock will be \$10,000. J. L. Farley is to be manager.

Birmingham—Car Works.—The American Car & Foundry Co. does intend to establish a branch plant in the South, as referred to last week, but nothing has been determined as to location, capacity, investment or other details; offices, Lincoln Trust Building, St. Louis, Mo.

Birmingham—Forge and Foundry.—Incorporated: The North Birmingham Forge Co., with capital stock of \$20,000, to operate a forge and foundry, producing drop forgings and machine work generally. Plant has been purchased and will be in operation within 60 days. Building is 96x106 feet. J. H. Minge, Jr., is president; W. E. Nicholls, manager, and E. J. Snyder, secretary; offices in the Woodward Building.

Carrollton—Lumber Company.—N. S. Curtis and others have incorporated the Pioneer Lumber Co. with a capital stock of \$10,000.

Horse Creek—Water-works.—P. Byrne, P. O. Box 11, Birmingham, Ala., is making surveys for the construction of proposed water-works.*

Jackson—Ice Plant.—W. J. Whaley of Mobile, Ala., is mentioned in connection with plans for locating an ice plant at Jackson.

Linden—Druggists.—E. E. Taylor, R. H. Powell, W. H. Taylor, Dr. J. C. Malone and others have incorporated the Marengo Abstract Co. with a capital stock of \$2500 to manufacture drugs, etc.

Mobile—Planing Mill.—Incorporated: The Dauphin Way Planing Mill Co., with capital stock of \$25,000, to build a planing mill. F. B. Browne, Frank Moore and R. A. Lambert are the incorporators.

Montgomery—Bottling Works.—The Montgomery Bottling Works Co. has been incorporated with a capital stock of \$10,000; O. D. Brewer, C. G. Zirkle and W. H. Moore, incorporators.

Opelika—Electric Plant.—The Opelika Electric Light Co. is reported as to increase the capacity of its plant three-fold in order to provide power for a local electrical railway about to be built.

Phoenix—Ice Plant.—James Summersgill is said to contemplate the doubling of his ice plant.

Slocumb—Mercantile.—Incorporated: Carroll-Watson Company, with \$12,500 capital stock, by L. A. Carroll, J. H. Watson and David Carroll.

Talladega—Ice Plant.—The Talladega Ice Co., which was organized recently, plans to build an ice plant of 15 tons capacity, with cold-storage room attached. It is capitalized at \$30,000. C. J. Houser is president, and G. T. McEliderry, manager.

Thorsby—Fertilizer Factory.—The Farmers' Warehouse & Fertilizer Co., J. Bice, president, will shortly begin the erection of fertilizer factory.*

Union Springs—Fertilizer Factory.—It is stated that Hugh Foster is interested in plans for the organization of a \$15,000 stock company which will establish a fertilizer factory.

Union Springs—Fertilizer Factory.—Union Springs Fertilizer Co. has been incorporated with \$15,000 capital stock by W. M. Pitts, Lee Alexander and others to manufacture fertilizers.

ARKANSAS.

Batesville—Mercantile.—The Weaver-Dowdy Company has been incorporated with a capital stock of \$50,000. Officers are: M. C. Weaver, president; R. A. Dowdy, vice-president; W. P. Jones, secretary and treasurer.

Dell—Cooperage Plant.—Big Lake Cooperage Co., reported incorporated last month with \$12,000 capital stock, will manufacture slack barrel staves and butter-tub stock, having a daily capacity of 40,000 pieces. Two buildings, 28x50 feet and 24x50 feet, will be erected. Machinery has all been purchased.

Eureka Springs—Drug Company.—Chartered: Jordan Drug Co., with a capital stock of \$25,000; John B. Jordan, president; Fred J. Coleman, secretary; R. P. Lisan, treasurer.

Fordyce—Township.—Chartered: Rock Island Township Co., with A. B. Banks, president; John T. Hicks, vice-president; John R. Hampton, secretary; Charles McKee, treasurer. The capital stock is \$200,000.

Gifford—Lumber Plant.—The Stewart & Alexander Lumber Co. will rebuild planing mill and sheds recently destroyed by fire. Plant will cost about \$35,000; will build by day labor.

Hot Springs—Sewerage System.—City has granted franchise to M. J. Henderson, J. C. Wyatt, Ed Parham and others to construct sewerage system, laying pipe of not less than six inches in diameter.

Little Rock—Sewerage System.—It is reported that Joseph McCoppin has contract at about \$5000 for the construction of proposed sewer system in Stiff's addition.

Little Rock—Furniture Company.—The Bowser Furniture Co. has been incorporated with a capital stock of \$30,000. Officers are G. H. Bowser, president; C. C. Bell, vice-president; John P. Baird, secretary and treasurer.

Prairie County—Saw-mill.—The L. E. Campbell Lumber Co. will be incorporated for the purpose of erecting a saw-mill to work up the timber on 5400 acres of land in Prairie county; mill to have a daily capacity of 15,000 feet; offices of company in Memphis, Tenn.

Spadra—Coal Mines.—It is reported that the Arkansas Anthracite Coal Co. is making preparations to begin the development of the 20,000 acres of coal lands it acquired previously near Spadra. The construction of a branch railway will be necessary in order to provide an outlet for the company's product. Henry Rammel of Little Rock, Ark., is president.

Stamps—Naval-stores Manufacturing.—The

Catahoula Naval Stores Co., reported incorporated last month with \$50,000 capital stock, will manufacture naval stores, having an annual capacity of 6000 barrels rosin and 1000 barrels spirits. The company controls 200,000 acres of long-leaf yellow-pine timber in Northern Louisiana, and will erect stills and operatives' houses at Trout, La. It is proposed to work approximately 225,000 boxes during the coming season; principal office, Hope, Ark.; P. O. Box 89.

Van Buren—Cotton Mill.—Sam R. Chew is reported as interested in a plan for the organization of a \$100,000 stock company to build a cotton mill.

Woodson—Saw-mill.—It is stated that the C. E. Ferguson Saw-Mill Co. of Little Rock, Ark., has begun the construction of a saw-mill at Woodson. It will cut lumber, shingles, laths, etc.; capacity 50,000 feet daily.

DISTRICT OF COLUMBIA.

Washington—Furniture Company.—The Home Furniture Co. has been incorporated with \$9000 capital stock by Robert E. Burks, M. L. Burks and William S. Herndon to continue an established business.

FLORIDA.

Jacksonville—General Development Company.—Incorporated: The Florida Development Co., with capital stock of \$50,000, to construct drainage canals and engage in general development work; John H. Miller of San Francisco, Cal., president; Howard T. Trumbo, Jacksonville, secretary, and George F. Miles, Pomfret, Conn., treasurer.

Jacksonville—Lithographing Plant.—The Florida Lithographing Co. has applied for charter for the purpose of conducting a general lithographing business. J. A. Holloman will be president, and C. R. Harper, general manager.

Palatka—Water-works.—The city is preparing to arrange for the construction of its proposed water-works system, and about \$60,000 will be the expenditure. W. W. Lyon is the engineer in charge. A. Usina is mayor.*

St. Augustine—Laundry.—Simmons & Holmes will erect laundry plant 100x40 feet, one story high, of sheet iron, to be equipped with modern machinery; estimated cost \$10,000.

St. Augustine—Electric-light and Power Plant.—St. John's Light & Power Co. has incorporated with \$300,000 capital stock to operate electric-light and power plant. William D. Barnett is president; W. M. Bostwick, Jr., vice-president, and Thomas R. Osmond, secretary.

Tallahassee—Drainage Canal.—It is reported that the board of trustees of the Internal Improvement Fund has engaged J. O. Frees, C. E., to make preliminary surveys from a point on the St. Lucie river to determine the most practicable and best route for a drainage canal from Lake Okeechobee at or near Chancy Bay to the waters of the St. Lucie river.

Tampa—Curbing and Paving.—It is reported the city has awarded contract for 40 miles of curbing to the Georgia Quincy Granite Co. of Macon, Ga., at about \$87,000.

Tampa—Dairy Company.—The Tampa Dairy Co. has been incorporated with \$10,000 capital stock by W. J. Barrett, R. I. Fisher and F. D. Bray.

Tampa—Street-paving.—The city has awarded contract to W. H. Kendrick at about \$600,000 for street-paving work.

West Palm Beach—Publishing.—Chartered: The Tropical Sun Publishing Co., with \$20,000 capital stock, by G. C. Matthews, Charles R. Kendall, W. H. Da Camara, E. A. Walker and C. M. Merrill.

GEORGIA.

Atlanta—Tool Company.—Albert E. Hill of Atlanta, Clarence M. Reynolds of Cobb county, Georgia, and Leon S. Holly of Aiken county, South Carolina, have incorporated the Tool Company with a capital stock of \$25,000.

Atlanta—Engineering Instruments.—Incorporated: The Rostrom-Brady Manufacturing Co., with capital stock of \$21,000, for manufacturing engineering instruments, etc., by Ernest A. Rostrom, Isaac A. Brady and Harry L. Schlesinger.

Augusta—Vehicles.—The Day & Tannahill Company has been incorporated with capital stock of \$50,000 for dealing in vehicles and vehicle materials, by Joseph H. Day, Robert N. Tannahill, Samuel Tannahill and Mrs. M. T. Welch.

Austell—Woodenware Factory.—The Austell Improvement Co., whose plant was recently burned, is endeavoring to secure location for a woodenware plant, and not lumber mill as mentioned previously, and will

resume operations as soon as a site or the necessary building can be secured.

Bainbridge—Foundry and Machine Plant.—D. T. Sutherland, who recently decided to build a foundry plant, is preparing to begin the construction work. Plant will include machine shop 50x50 feet, pattern shop 25x50 feet, boiler and engine room 40x50 feet. It is reported that contracts for the machinery have not been awarded.

Brunswick—Ice Plant.—M. A. Baker is reported as to organize company for the erection of a 25-ton ice plant.

Calhoun—Electric-light Plant.—George C. Chambers will establish the electric-light plant recently mentioned; will invest \$4000; building to be 26x50 feet; machinery to furnish 500 incandescent lamps and 10 arc lamps.*

Carrollton—Cotton Mill.—The Mandeville Mills will increase capital stock by \$40,000.

Columbus—Cotton Mill.—The Swift Manufacturing Co. will expend from \$75,000 to \$100,000 to enlarge its mill; present equipment about 14,000 spindles and 420 looms. A four-story addition will be erected to present building and 5000 spindles will be added. The new machinery will be driven partly by electricity and partly by steam power.

Columbus—Fertilizer Factory.—The Home-Mixture Guano Co. will expend about \$40,000 to improve its plant. It has begun to enlarge the acid chamber and will erect an addition to the main building.

Columbus—Wire-cloth Mill.—It is stated that Henry L. Woodruff contemplates establishing a wire-cloth mill.

Cordele—Ice and Cold-storage Plant.—F. S. Richardson, W. W. Turner, Edw. Stallings and associates are said to be planning the organization of a company for the purpose of building a 25-ton ice and cold-storage plant.

Cornelia—Bottling Works.—Hicks & Thomas of Clarksville, Ga., will establish bottling works.

Dahlonega—Stamp Mill.—M. M. Rogers is said to be preparing for the erection of a stamp mill at his gold mine near Dahlonega.

Dublin—Electric-light System.—The city is preparing to enlarge and improve its electric-light plant. The system will be changed from a high to a low frequency and include the substitution of a 200-kilowatt alternator in place of the 100-kilowatt alternator now being used; providing also for 70 arc lights, 50 of which will be installed at once. Voltage will be increased to 2300 for the incandescent and 3300 for the arc lights; estimated cost of improvements \$4000. Address The Mayor.

Ellerton—Cold-storage Plant.—Charles W. Parker is mentioned in connection with reports that a 20-ton cold-storage plant will be built.

Hawkinsville—Ice Plant.—The Hawkinsville Light & Ice Co. is reported as to add machinery for doubling the present capacity of its ice plant.

Lumber City—Saw-mill.—B. B. Cheney and associates will establish a saw-mill.*

Milledgeville—Shoe Company.—Chartered: The Fred Haugh Shoe Co., with \$3000 capital stock, by George Haugh, R. T. Baisden and associates.

Monroe—Electric-light Plant.—The Electric Supply Co., Savannah, Ga., has contract for the erection of electric-light plant previously reported; plant to generate a current for 4000 incandescent lights and cost about \$20,000.

Monroe—Water-works.—The city has accepted plans and specifications for its proposed water-works system, recently referred to, and proposals are being invited, to be opened August 28. This plant will include two 750,000-gallon pumps, 15x110-foot stand-pipe, 400-gallon pump and induction motor, 500 tons of piping, etc. J. B. McCrary of Senoia, Ga., is the engineer in charge.*

Piedmont—Candy Factory.—Chartered: Piedmont Candy Co., with \$2500 capital stock, by J. P. Davenport, W. C. Satterwhite and R. O. Middlemas, to manufacture candies, etc.; principal office, Atlanta, Ga.

Rome—Electric-light-plant Improvements.—It is reported that the City Electric Co., C. N. Fuller, superintendent, will make improvements to plant. H. E. Bailey is chief engineer.

Tallapoosa—Furniture Factory.—M. A. Greene, George T. Bradley, Rowe Price and others are organizing a company with a capital stock of \$20,000 for the purpose of purchasing the plant of the Lawrenceburg Furniture Co. of Lawrenceburg, Tenn., and removing it to Tallapoosa. Jacob Zapf, manager of the Lawrenceburg Furniture Co., associated with Lucy C. Zapf, will conduct the business at Tallapoosa.

Tifton—Vehicle Works.—It is reported that

W. H. Bennett will establish wagon and buggy factory.

KENTUCKY.

Barbourville—Coal Mine.—Hammonds & Cottonjim, it is reported, have begun the development of a coal mine on the property of John A. Black near Barbourville.

Crab Orchard—Distillery.—R. H. Yates of Louisville and P. C. Smith of Sulphur, Ky., have organized the Yates-Smith Company with a capital stock of \$100,000 for the purpose of purchasing and operating a distillery already established. Plant was purchased from Julius Kessler of Chicago. A number of improvements will be made.

Frankfort—Lumber Mill.—The Capital Lumber & Manufacturing Co., reported incorporated last week with capital stock of \$30,000, has begun the erection of saw-mill to have daily capacity of 40,000 feet, and will soon begin construction of planing mill and box factory. Saw and planing equipment has been purchased. E. H. Elliott has been elected president; W. J. Roberts, vice-president, and E. M. Wallace, treasurer.

Franklin—Ice Plant.—Reports state that A. F. De Graffenreid of Russellville, Ky., will build a small ice plant at Franklin.

Georgetown—Sewerage System.—City is reported as arranging for the construction of proposed sewerage system, for which \$25,000 is available; J. W. Kellar, mayor.

Harrodsburg—Barytes and Fluor-spar Mines, etc.—A local company has begun the development of lands containing fluor-spar, calc-spar, barytes, lead and zinc. It is planning to establish a \$20,000 plant for pulverizing the output for shipment and also expects to install machinery for the manufacture of brick from the sand bars controlled. Probably W. T. Ewing can give information.

Lexington—Real Estate.—The Fayette Land Co. has been incorporated with \$5000 capital stock by W. J. Foley and J. W. Norwood.

Lexington—Oil Wells.—The Ralmeyville Oil Co. has been incorporated with capital stock of \$25,000 to drill for oil by T. C. Geary of Lexington, W. H. Leith of Detroit, Mich., and others.

Louisville—Carpet Company.—The W. H. McKnight Sons Company has increased capital stock from \$100,000 to \$150,000.

Louisville—Publishing.—The Inland Farmer Publishing Co. has increased capital stock from \$8000 to \$10,000.

Owensboro—Coal Mines.—The American Cannel Coal Co. has effected a reorganization with a capital stock of \$100,000, and will proceed with the development of its properties. S. W. Dexter of New York is president, and James Shallcross of Owensboro, secretary.

Paducah—Knitting Mill.—The Dixie Mills Co., reported last week, has begun the erection of a two-story addition 50x60 feet and will install 43 more knitting machines. Contracts have been awarded.

Pike County—Coal-mining.—The Greenough Coal & Coke Co. has leased from the Big Sandy Co., Pikeville, Ky. (not Pikesville, Ky., as reported last week), a tract of coal land in Pike county, and arrangements are being made for the installation of the most improved mining machinery for its development; capital stock \$100,000.

Pike County—Coal-mining.—The Pike Coal & Coke Co. has leased from the Big Sandy Co., Pikeville, Ky., a tract of coal land in Pike county, and arrangements will be made for developing same; first-class mining machinery will be installed. The company has a capital stock of \$100,000. (The address of the Big Sandy Co. was erroneously reported last week as Pikesville, Ky.)

Somerseset—Water-works and Electric-light Plant.—City will let 20-year franchise August 14 to the highest bidder for the construction and operation of electric-light plant; T. R. Griffin, mayor.*

LOUISIANA.

Donaldsonville—Revetment Work.—The Atchafalaya and Lafourche levee boards have let contract to R. Corbett at \$4.40 a lineal foot for building a pile revetment on both sides of Bayou Lafourche extending from the Donaldsonville dike.

New Orleans—Can Factory.—It is stated that the American Can Co. of Chicago, Ill., will build a branch factory at New Orleans.

New Orleans.—Chartered: Nicholas Export Co., Ltd., with \$300,000 capital stock, by John H. Nicholas and others.

MARYLAND.

Hancock—Overall Factory.—J. T. Bridges & Co. are preparing to begin construction work on building which they will equip for the manufacture of overalls.

MISSISSIPPI.

Barlow-Oil Mill and Fertilizer Plant.—H. H. Goza, A. B. Weeks and others have incorporated the Barlow Oil Mill and Fertilizer Co. with a capital stock of \$25,000.

Hattiesburg—Telephone System.—The city has granted franchise to J. A. Jones, George D. Winter and S. A. Jones to build an underground telephone system at a cost of \$125,000.

Heidelberg—Cotton Gin.—Lyon Bros., reported last week as building cotton gin, will have two buildings 20x50 feet and 26x35 feet; daily capacity 30 bales; A. W. Brunson, architect.*

Meridian—Cotton and Trading Company.—John H. Williams, W. L. Waller, H. A. Smith, J. H. Pinson and associates have incorporated the Meridian Cotton & Trading Co. with \$25,000 capital stock.

Mize—Mercantile.—J. W. Clisson and others have incorporated the Mize Mercantile Co. with a capital stock of \$10,000.

Philadelphia—Compress, Electric Lights, etc.—A. M. Boyd and others have incorporated the Philadelphia Compress, Electric Light & Ice Manufacturing Co. with a capital stock of \$30,000.

Senatobia—Saw and Stave Mill.—The L. J. Parker Stave Co. of Wildersville, Tenn., will build the saw-mill and stave factory referred to last week. Nearly all the machinery has been purchased. Building will be 30x70 feet, and \$50,000 will be invested.*

State Line—Excelsior Factory.—R. J. Briggs, Jr., contemplates establishing an excelsior factory. Machinery has not been purchased.*

Union—Electric Light Plant, Water-works and Sewerage System.—The Gulf States Investment Co. has been incorporated, with \$200,000 capital stock, by S. M. Jones, F. L. Riley and R. W. Jones, to operate lighting plants, water-works, sewerage systems, etc.

Waynesboro—Warehouse and Storage.—The Farmers' Warehouse & Storage Co. has been incorporated with a capital stock of \$5000 by H. H. Goza and others.

MISSOURI.

Joplin—Steel Works.—The Bartlett Steel Co. will rebuild plant which was destroyed several days ago at a loss of nearly \$50,000.

Joplin—Boiler and Machine Shops.—Henry Stark is said to have completed plans for the erection of his proposed boiler and machine shops, an addition to the present plant, increasing the capacity; new structure to be two stories high. Contracts have been awarded for the new machinery.

Kansas City—Heat, Light and Power Plant. Bernard Corrigan, who has received municipal franchise to establish plant for furnishing heat, light and power to office buildings, is arranging to begin the construction work required. Electricity will be supplied for light and power and steam for heat. The expenditures will amount to more than \$100,000. Certain established plants will be utilized in this connection.

Ozark—Flour Mills.—The Ozark Water Mill Co. and the Ozark Milling Co., operating water-power flour mills, have consolidated as the Ozark Water Mills, with capital stock of \$25,000, and may enlarge the plants. Geo. T. Breazeale is president, and James A. Tindle, manager.

St. Louis—Heating Apparatus.—Incorporated: The Peters-Eichler Heating Co., with capital stock of \$10,000, to manufacture and deal in heating apparatus and other mechanical equipments. Thomas K. Peters, Alvin Eichler and John S. Leahy are the incorporators.

St. Louis—Supplies.—Incorporated: The Eagle Supply Co., with capital stock of \$25,000, by O. C. Clumeyer and others, to deal in supplies.

St. Louis—Sewer Work.—Contract has been awarded to Fred Hoffman at \$374.50 for the construction of Benton sewer to drain 14 acres of land.

St. Louis—Clay and Mineral Manufacturing.—John C. Bonnell, F. C. Francis and Frank H. Neff have incorporated the United States Clay & Mineral Manufacturing Co., with \$50,000 capital stock, to manufacture and deal in clay, sand, minerals, etc.

St. Louis—Lumber Mill.—Incorporated: Alf Bennett Lumber Co., with \$20,000 capital stock, by Alfred Bennett, R. C. Campbell, George S. Johnson, F. V. Feldkamp and associates, to manufacture lumber, etc.

St. Louis—Machine Shops.—W. B. Knight Machinery Co. has incorporated, with \$10,000 capital stock, to manufacture machinery, tools, etc.; incorporators, William B. Knight, Edward S. Knight and Albert K. Ebersole.

St. Louis—Mining Company.—Joseph Winkle, Eliza J. L. Winkle, Andrew Winkle and John G. Hewitt have incorporated the Bald

Eagle Mining Co. with \$10,000 capital stock.

St. Louis—Shoe Company.—Incorporated: Shoemart Company, with \$35,000 capital stock, by William C. Teasdale, Jr., Mortimer C. Furchgott and David R. Ralston, to deal in boots, shoes, etc.

St. Louis—Grocery Company.—Charles C. Rupert Grocery Co. has been incorporated with \$10,000 capital stock by Charles C. Rupert and others.

NORTH CAROLINA.

Asheville—Churn Factory.—The Blue Ridge Churn Co. has been organized with \$10,000 capital stock to manufacture churns. H. M. Brown is president; Charles G. Lee, secretary-treasurer, and S. P. Davis, manager.

Asheville—Telephone Exchange.—The Asheville Telephone & Telegraph Co. has acquired site 40x155½ feet for the erection of fireproof building to be equipped as an exchange. Construction work will probably not begin for a year.

Asheville—Municipal Reservoir.—The city is considering the construction of a reservoir to cost about \$50,000. Size has not been determined nor have plans been made. B. M. Lee is the city engineer.

Charlotte—Engineering Company.—Incorporated: The C. C. Morgan Engineering Co., with capital stock of \$5000, by C. C. Morgan, Edgar L. Brown and C. C. Beddoes. This company continues the general engineering business heretofore conducted by the Morgan-Beddoes Company.

Charlotte—Cotton-mill Machinery and Supplies.—Southern Spindle & Flyer Co., reported incorporated last week with \$20,000 capital stock, has completed organization with T. M. Costello, president; W. H. Monty, treasurer, and A. Gullett, secretary. The company will manufacture spindles, steel rolls, pressers, etc., repair spinning and speeder frames and engage in general cotton-mill overhauling. A building 50x150 feet will be erected; offices, Cedar and 1st streets.*

Cherryville—Cotton Mill.—Reports state that H. F. Schenck and associates will form company to build a cotton mill.

Gastonia—Cement Factory.—J. B. Beal and J. L. Beal are investigating with a view to establishing plaster and cement factory. Site of seven acres has been secured for the location of the plant.

Gilsonville—Drug Company.—Mrs. L. L. Jordan, G. E. Jordan and J. H. Walker have formed the Gilsonville Drug Co. with a capital stock of \$3000.

Greensboro—Egg-crate Factory.—R. K. Gregory has invented a folding egg crate, and will probably establish plant for its manufacture.

Hendersonville—Grocery Company.—The Hendersonville Wholesale Grocery Co., reported last week as incorporated and to build modern structure, etc., is located at Hendersonville, N. C., not in South Carolina, as erroneously stated last week. Capital stock is \$50,000. Two-story granite building will be erected.

Marion—Chemical Works, etc.—The Swannanoa Chemical Co., previously reported incorporated with \$10,000 capital stock, has completed organization with J. W. Pless, president; D. E. Hudgins, secretary, and John N. Houck, general manager and treasurer. Medicines, toilet articles, temperance drinks, etc., will be the product.*

Morganton—Mining.—Charles Beebe and Charles W. Fisher of New York and Leith Gordon of Morganton have incorporated the Blue Ridge Consolidated Mining Co. with a capital stock of \$100,000.

Mount Olive—Cotton Gin, etc.—W. F. Martin, D. R. Perry and Lovett Lee have incorporated the Mount Olive Gin & Manufacturing Co. with \$2000 capital stock.

Oxford—Furniture Factory.—Incorporated: Bruno Manufacturing Co., to manufacture a patent furniture roll, dressers, tables and veneer. The capital stock is \$200,000. Incorporators are B. M. Haubold, Mrs. Fannie Haubold and J. C. Horner.

Reelsboro—Toy Factory.—The Home Supply Co., reported last week as to engage in the manufacture of toys, will erect building 30x100 feet. About \$5000 will be invested. C. H. Barrow is engineer in charge, and Geo. Madison, architect.*

Reelsboro—Telephone Pins, Brackets, etc.—The Reelsboro Gin & Mill Co. will erect buildings, 30x100 feet and 20x60 feet, respectively, and equip for the manufacture of telephone pins, brackets and crossarms; about \$1000 will be invested. Grant Reece is engineer in charge, and Lewis Reece, architect. This company was reported last week as to enlarge plant and install machinery for this purpose.*

Rutherfordton—Bottling Works.—Robert E. Haynes of Henrietta, N. C., will establish

the Piedmont Bottling Works, for which a site has been secured.

Sanford—Water-works.—The city expects to expend about \$10,000 to duplicate its water-works, the improvement referred to last week. Contract has been awarded for new building and for the new machinery, but not for all the piping and supplies. A. L. McNeill is chairman of water committee; W. S. Weatherspoon, mayor.*

Southern Pines—Water-works and Sewerage System.—The city has voted affirmatively as to the proposed issuance of \$10,000 for construction of water-works and sewerage system. Address The Mayor.

Stanley—Batting and Mattress Factory.—The Carpenter Manufacturing Co. has been organized with J. G. Carpenter, president; Dr. T. C. Quickel, vice-president, and R. E. Carpenter, secretary-treasurer, to manufacture batting and felt mattresses.

Washington—Publishing.—The Gazette Publishing Co. has been incorporated with \$25,000 capital stock by John C. Rodman, Jesse L. Warren and Junius D. Grimes.

Wilmington—Lumber.—Incorporated: The Riverside Lumber Co., for the manufacture of lumber and kindred supplies; authorized capital stock \$100,000. The incorporators are W. J. Reaves, M. D. Bright and J. D. Hedrick.

Wilmington—Water-works.—The Board of Aldermen are considering a resolution to arrange for the municipal ownership of water-works system. Address The Mayor.

SOUTH CAROLINA.

Anderson—Water-power-Electrical Development.—The Hattons Ford Power Co. has been incorporated with capital stock of \$150,000 to develop water-power and build an electric plant at Hattons Ford, 16 miles west of Anderson. It is estimated that 6000 horsepower can be obtained. Augustine T. Smythe of Charleston, S. C.; R. S. Ligon and Fred G. Brown of Anderson are the incorporators. Reference has been made to this project previously.

Chalk Hill—Kaolin Mining and Manufacturing.—The United States Kaolin Co., which incorporated recently with capital stock of \$100,000, has purchased and purposes to develop 118 acres of kaolin lands in Aiken county near Chalk Hill. Manufacturing plants are also to be established after the opening of the mines. J. L. Driscoll is treasurer of the company, offices at 2303 Baltic avenue; Joseph Young, secretary, 125 North Pennsylvania avenue, both in Atlantic City, N. J.

Charleston—Land and Timber.—The Southern Land & Timber Co. will hold a meeting on August 22 to consider increasing its capital stock to an amount not exceeding \$150,000.

Columbia—Building-block Factory.—W. C. Bain has purchased site 100x225 feet and will erect at once building to be equipped for the manufacture of building blocks. A concrete brick machine has been ordered and a machine for making building blocks is yet to be purchased. This will supplement the factory established a few weeks ago.

Columbia—Live-stock Company.—Chartered: Rhea Live-Stock Co., with \$10,000 capital stock. W. S. Reamer is president; T. H. Meighan, secretary, and S. W. Rhea, treasurer.

Gaffney—Tin Mine.—The Ross Tin Mine has been incorporated with S. S. Ross, president; B. L. Hames, vice-president; D. C. Ross, secretary and treasurer. Mine is now in operation.

Greenville—Cotton-oil Mill.—The Farmers' Oil Mill will overhaul its cottonseed-oil plant and put the machinery in modern condition.

Spartanburg—Street-paving.—City has voted affirmatively the \$100,000 bond issue referred to last month for street-paving. George Barker of Savannah, Ga., was recently awarded contract to the extent of \$20,000 for the placing of cement sidewalks on the leading thoroughfares of the city; Arch. B. Calvert, mayor.

TENNESSEE.

Bristol—Wagon Works.—The Haggy Wagon Co. of Abingdon, Va., it is reported, will establish branch factory.

Bristol—Lumber Manufacturing.—The Pee Dee River Lumber Co. has been incorporated with \$100,000 capital stock by James H. Bryan, J. B. Mumgardner and associates to manufacture and deal in lumber.

Chattanooga—Cooperage Plant.—The Chattanooga Cooperage Co., which recently increased its capital stock from \$20,000 to \$50,000, has begun the installation of a ceiling and flooring mill at its plant and will make other improvements. Contracts have been awarded for the new machinery.

Chattanooga—Iron Mines.—It is stated that R. F. Kelson and R. B. King of Birmingham, Ala., have leased and will develop lands bearing red hematite iron ore at the foot of

Lookout mountain. The deposits are claimed to be of exceptional superiority, and the lessees of the property are now preparing to open mines and market the output.

Clarksville—Beverage Factory.—The Queen City Carbonating Co. has been incorporated with \$10,000 capital stock by W. A. Chambers, J. D. Coleman, J. S. Hutchinson, W. H. Green and Austin Peay to manufacture non-alcoholic beverages. It is also proposed to manufacture cider, vinegar, cakes, crackers and candies.

Cleveland—Sewerage System.—E. H. Thurston is interested in plans for the construction of a municipal sewerage system.

Columbia—Phosphate Mines.—John Ruhm, Jr., and J. A. English have formed a partnership to undertake the mining of phosphate rock and to deal in such products.

Elizabethton—Chair Factory.—The Empire Chair Co. has begun the erection of an addition to its factory.

Elizabethton—Water-power Plant.—Dayton Hunter will develop water-power and establish plant to furnish power to local manufacturing and other industrial enterprises.

Jackson—Land Company.—Incorporated: The Anderson-Ezell Land Co., with capital stock of \$50,000, by H. C. Anderson, Harry Ezell and others.

Gallatin—Hoop Factory.—Whitehouse & Dyer will add a hoop factory to their barrel plant.

Knoxville—Knitting Mill.—The Standard Knitting Mills is reported to have begun the erection of a 40x200-foot addition which will be equipped with new machinery; present equipment, 37 machines.

Knoxville—Stone Works.—The Tennessee Stone Manufacturing Co. has been chartered with capital stock of \$25,000 by R. H. Simmonds, A. R. Ogden, Thomas R. Jones, S. B. Luttrell, Jr., and Horace Van Deventer.

Knoxville—Street Improvement.—City is advertising for bids on contract for paving four sections of the municipality. Specifications for the work are on file at the office of the city engineer, and consider brick, asphalt and bitulithic paving; C. C. Nelson, city recorder.

Knoxville—Timber-land Development.—It is stated that W. T. Reeder and associates have purchased the stumpage on 1500 acres of timber land from the East Tennessee Coal & Iron Co. and will cut the tract. A portable saw-mill has been purchased and located on the property.

Memphis—Real Estate.—Incorporated: The Royal Realty & Investment Co., capitalized at \$10,000, by I. D. Block, Lawrence Block, Benjamin W. Hirsch and others.

Milan—Cotton Gin.—The Watson Gin Co. of Huntingdon, Tenn., will build a cotton gin at Milan.

Memphis—Coal Mines.—The South Side Coal Co., which was incorporated recently, plans to build a 38-mile railway in connection with the development of its coal properties. It has a capital stock of \$1,250,000, and the incorporators include P. D. Kluman, Anthony Hall, Henry Strother, Dee Bradshaw, G. D. Oock, Allen B. Smith and William Alton, Jr.

Memphis—Real Estate.—The Guardian Real Estate & Investment Co. has been incorporated, with a capital stock of \$25,000. Officers are John R. Greer, president; E. M. Coker, vice-president; R. J. Morrow, secretary.

Memphis—Flour Mill.—It is reported that millers interested in the Cairo Milling Co. of Cairo, Ill., will build a flour mill at Memphis.

Nashville—Cotton Mill.—W. R. Odell of Concord, N. C.; J. B. Morgan, Joseph H. Thompson and others of Nashville have purchased the Tennessee Manufacturing Co. cotton-mill property, and receive possession when titles have been examined and found clear. They will organize a company with Mr. Odell as president, and Mr. Morgan, secretary-treasurer, to refit the mill with modern machinery at a cost of from \$350,000 to \$400,000. No other details can be stated at this time. This proposition was referred to last week.

Nashville—Medicine Factory.—The American Medicine Co., recently organized with a capital stock of \$25,000, has established a plant at 123 Second avenue for the manufacture of proprietary medicines. Officers are A. E. Porter, president and manager; J. M. Phillips, vice-president; D. F. Wallace, secretary and treasurer.

Nashville—Trunk Factory.—The Hill Trunk Co. has reorganized and increased its capital stock to \$50,000, preparatory to installing machinery for which quarters have been secured adjoining the main building of the plant. Officers are John Langham, president; Walter McComb, Jr., general manager; James M. Journey, secretary and treasurer; An-

drew J. Ewing, superintendent; Charles W. Foreman, foreman.

Nashville—Bakery.—The American Bread Co., reported last week as having purchased site on which to build bakery, will erect two-story building, 30x60 feet, which will be equipped for a daily capacity of 30,000 loaves of bread; about \$50,000 will be invested. Machinery has been purchased; Thos. S. Marr, Chamber of Commerce Building, architect.

Shelbyville—Electric Plant.—City has voted affirmatively on the proposition to issue \$20,000 bonds for the purpose of purchasing electric plant. Address The Mayor.

Summitville—Portland-cement Plant, Limestone Quarries, etc.—The Tennessee Lime & Cement Co. has been incorporated with \$25,000 capital stock and privilege of increasing to \$125,000 by R. T. Valkenburg, O. W. Corbett and associates to erect and operate Portland-cement plant and develop lime deposits. A tract of 335 acres, containing cement and rock deposits, has been purchased. Messrs. Valkenburg, Corbett and associates were reported in May as having purchased the plant of the Summitville Lime & Stone Co., operating a rock-crushing plant and lime-kilns, and would organize company to operate same, increasing the capacity. It is proposed to equip the cement plant for a daily capacity of 500 barrels and increase the daily output of lime to 1000 bushels. Warehouses, office building, etc., will be erected at Nashville; C. L. Hutchison, architect.

TEXAS.

Alvarado—Electric-light and Power Plant.—The McQuatters Machine & Plumbing Co. of Hillsboro, Texas, has recently purchased the plant of Alvarado Light & Power Co. and will enlarge and improve it.

Austin—Telephone System.—The Commercial Telephone Co. is to be reorganized by J. A. Quisenberry of Danville, Ky.; J. H. Goeke of Wapakoneta, Ohio, and F. Bimel of Portland, Ind., who have paid \$110,000 for the telephone properties. It is said they will increase capital stock to \$500,000 and extend the lines, improve the exchanges, etc.

Beaumont—Publishing.—S. H. McGary, Mike Walker, John N. Gilbert, William Wiess and W. C. Averill have incorporated the Beaumont Journal Publishing Co. with \$50,000 capital stock.

Blanket—Mercantile.—Incorporated: The Higginbotham-Williams Company, capital stock \$50,000, by R. W. Higginbotham of Dublin, Texas; T. J. Williams, Comanche; Ed. Boonk, L. J. Carruthers, E. S. Baker and Scott H. Mack of Blanket.

Burnet—Cotton-oil Mill and Gin.—The Burnet Oil Mill & Gin Co. has organized with capital stock of \$20,000 to build cotton gin and cottonseed-oil mill; S. W. Holland, president; Frank Thomas, vice-president; J. P. Bass, secretary, and J. L. King, treasurer.

Clarendon—Lumber Company.—Incorporated: The Clarendon Lumber Co., capital stock \$20,000, by W. H. Patrick and A. C. Morgan, Clarendon, and T. S. Foster, Houston, Texas.

Dallas—Coffee Mills.—Incorporated: The C. F. Blanke Tea & Coffee Co., capital stock \$50,000, by C. F. Blanke, St. Louis, Mo.; E. Nuenschwander, A. A. Jackson, C. A. Mangold, Dallas, and W. H. Stewart, Honey Grove, Texas.

Dallas—Undertaking and Embalming.—Incorporated: Johnson-Donovan Company, with \$10,000 capital stock, by Charles Pollack, Sterling Price and P. J. Donovan.

Dallas—Electric Company.—Chartered: The Egan Electric Co., with \$15,000 capital stock, by C. H. Egan, D. L. Gobble and G. G. Wright.

Dallas—Electric-light and Power Plant.—The Dallas Electric Light & Power Co. has obtained permit for the erection of its proposed electric-light and power plant, the permit stating that the building will cost \$125,000 exclusive of the machinery. It is understood that the mechanical equipment will cost about \$350,000. Building will be 75x100 feet, of brick and steel. Construction work has begun.

Dallas—Road Building.—The county commissioners have awarded contract for grading four cardinal roads from city to county line and West Dallas pike to Bavouset, Larkin, Goode & Co. for \$20,000.

Denison—Cotton Mill.—W. B. Munson, J. B. McDougal, S. P. Archer and J. R. Handy have incorporated the Denison Cotton Mill Co., with capital stock of \$150,000. They will utilize an established plant.

Denison—Church-organ Factory.—P. C. Preston contemplates organizing company with a capital stock of \$100,000 to establish organ factory for the manufacture of an organ after his own invention.

Eagle Pass—Trestle Bridge.—The Galves-

ton, Harrisburg & San Antonio Railway, W. G. Van Vleck of Houston, manager, will at once arrange to rebuild trestle bridge 750 feet long, destroyed by fire recently.

Fort Worth—Cotton Compress.—The Traders' Compress Co. has been incorporated with \$250,000 capital stock by R. H. Woolen, C. F. Witherspoon, N. P. Anderson and H. B. Johnson.

Fort Worth—Grain Company.—Incorporated: The Dasey-Moore Grain Co., with capital stock of \$25,000, by H. F. Dasey, T. J. Moore and C. H. Miller.

Gainesville—Drug Company.—Incorporated: The Edwards Drug Co., capital stock \$30,000, by J. T. Edwards, Roy Dickman and Dan Siddall.

Gonzales—Pickle Factory.—James Towns of Monahalia, Texas, contemplates the erection of a vinegar and pickling plant.

Granbury—Cottonseed-oil Mill.—F. O. Fidler, Fred Slocum, R. C. Kinler and D. J. Cogdel have organized a company with \$25,000 capital stock to erect cottonseed-oil mill.

Granbury—Cotton Gin.—Incorporated: Farmers' Gin Co., with \$10,000 capital stock, by G. W. Perkins, Ben T. Sargent and W. A. Bunyon.

Humble—Telephone System.—Incorporated: The Humble Telephone Co., capital stock \$2000, by W. T. Campbell, W. M. Abbey and W. W. Woodworth.

Jasper—Turpentine Orchard.—It is reported that Alexander Gilmer of the Alexander Gilmer Lumber Co. of Orange, Texas, who owns 30,000 acres of pine lands near Jasper, Texas, has closed negotiations with M. L. Curry of Georgia for the establishment of a turpentine camp on the property. Work of erecting quarters, commissary and warehouse will begin next month.

Katy—Rice Mills, etc.—The Katy Rice Milling Co. has incorporated with \$20,000 capital stock to operate mills, elevators, etc.; incorporators, A. Stockdick, W. H. Weller, J. H. Cabaniss, John Cope, W. H. Alderson, W. E. Shapley, William Eule of Katy, W. J. Williamson and H. C. Glenn of Houston, Texas.

Longview—Foundry and Machine Shop.—G. B. McDonald, proprietor Longview Iron Works, previously reported as having purchased site on which to build addition for increasing capacity, will erect building 50x100 feet; about \$1500 will be invested.*

Mexia—Water-works and Electric Plant.—The McQuatters Machine & Plumbing Co. of Hillsboro, Texas, which recently purchased the plant of the Mexia Water-Works & Electric Light Co., will enlarge and improve it, expending about \$75,000.

Orange—Lumber Company.—Incorporated: The Hughes & Wilson Lumber Co., capital stock \$10,000, by T. M. Hughes, S. H. Wilson and Preston Hughes of Newton county, and S. H. Wilson of Orange.

Rising Star—Cotton Gin.—Incorporated: The Farmers & Merchants' Gin Co., with capital stock of \$6000, to operate cotton gin, by W. T. Palmer, S. H. Clark, G. P. Browner, A. D. Tyler and others.

San Antonio—Electric-light Plant.—C. A. Zilker is mentioned in connection with plans for the organization of company to build another electric-light and power plant.

San Antonio—Iron Mines and Furnaces.—It is reported that Eastern capitalists have agreed to furnish capital for the development of the iron-ore fields of Llano and Mason counties and the erection of iron furnaces, coke ovens and other industrial plants, the industries to be definitely assured upon the completion of an extension of the St. Louis & San Francisco Railway to a connection at Waring. Reports regarding this development of Mason and Llano county lands have been current recently. Several months ago it was stated that R. H. Downman of New Orleans was interested in purchases and developments in those counties. No names are mentioned in connection with the present reports.

San Saba—Light and Ice Plant.—The San Saba Light & Ice Co. has increased its capital stock from \$15,000 to \$30,000.

Santa Maria—Irrigation System.—Incorporated: The Santa Maria Irrigation Co., capital stock \$10,000, by Le Grand W. Jones, Trenton, Tenn.; L. R. Price, C. E. Hammond and E. C. Forto of Brownsville, Texas, and Walter A. McNeil, Santa Maria.

Sherman—Telephone System.—The North Texas Telephone Co. has been incorporated with a capital stock of \$10,000 to establish long-distance telephone system between Sherman and Gainesville, Texas, by way of Whitesboro, with Sherman as the central station. Officers are S. W. Porter, president; S. D. Donoho, vice-president; C. A. Shock, secretary-treasurer.

Sweetwater—Construction Company.—Incorporated: The International Construction Co., with capital stock of \$500,000, by H. C.

Hord, Thomas Trammel and E. E. Holmes, for general construction purposes in connection with railroad work.

Uvalde—Telephone System.—It is reported that Jack Patterson of Montell, Texas, will construct telephone line to Barksdale from Uvalde.

Waco—Printing and Publishing.—A. R. McCollum, C. B. McCollum and J. M. Pittillo have incorporated the Tribune Company, with a capital stock of \$10,000, to do a general printing and publishing business.

Waco—Oil Wells.—The Bonnie Oil & Pipe Line Co., previously reported incorporated with \$10,000 capital stock, has completed organization with F. W. Lake, president; J. D. Williamson, vice-president; Langdon Harris, secretary, and J. C. Fields, treasurer. The company controls 48 acres of land in the proven field, a portion of which is being developed. Neither architect nor engineer has been engaged.

VIRGINIA.

Abingdon—Woodworking Plant.—The Colonial Manufacturing Co., reported last week as building woodworking plant, is erecting buildings, 32x160 feet and 32x100 feet, respectively. About \$10,000 will be invested.*

Abingdon—Manufacturing.—The Colonial Manufacturing Co. has been incorporated, with a capital stock of \$10,000; Charles B. Clark, president and general manager; F. B. Hurt, vice-president; W. W. Hurt, secretary and treasurer.

Abingdon—Mineral Developments.—The Unaka Corporation has been chartered with capital stock of \$50,000 for the development of mineral resources. George L. Carter is president.

Emporia—Cotton Mill.—The Ashby Cotton Mills is reported as to double its 5000-spindle equipment.

Luray—Copper Mining.—It is rumored that H. P. Brinton, a Western metallurgist, is preparing to organize a company with \$3,000,000 capital stock to develop copper deposits at Stony Man mountain near Luray.

Lynch Station—Telephone System.—Lynch's Telephone Co. has been incorporated, with a capital stock of \$5000; W. Fauntleroy, president; W. S. Frazier, secretary and treasurer; W. T. Webb, general manager.

Petersburg—Water-works Improvement.—Reports state that Perkinson & Finn have been awarded contract for laying about two miles of water mains.

Norfolk—Bakery.—Adams Baking Co. has been incorporated with an authorized capital stock of \$100,000. S. A. Lathrop is president, and J. W. Davenport, secretary.

Port Heywood—Ice Plant.—Marion C. Burroughs contemplates establishing ice plant with a daily capacity of 21 tons.*

Richmond—Locomotive Repair Shop.—It is reported that A. St. Clair Butler has purchased the machinery and office building of the Wm. R. Trigg Shipbuilding Co. at \$368,000 and will utilize the property by continuing it as a repair plant for locomotive and marine engines, leasing it to C. B. Ford, the present occupant, who will install modern machinery.

Richmond—Gas-pipe Line.—City has awarded contract to Thomas A. Barry & Co. at \$60,280.50 for building pipe line and equipment from lower gas works to the gas-holder.

Roanoke—Ice and Cold-storage Plant.—R. B. Briggs intends to build an ice and cold-storage plant early next year.

Roanoke—Construction Company.—Incorporated: Eliason, Rhodes & Co., with capital stock of \$10,000, to construct bridges, railroads, etc. John T. Rhodes is president, and N. T. Bartley, vice-president, both of Thacker, W. Va., and Z. P. Eliason of Roanoke, secretary.

Roanoke—Planing Mill.—Catogni Brothers have begun the reconstruction of their planing mill and lumber yards, recently destroyed by fire. About eight acres of land will be occupied by sheds, 50x100-foot mill building, 20x250-foot stockhouse and other structures. About \$25,000 will be invested.

Roanoke—Sewerage System.—City will receive bids until September 1 for constructing sewerage system; J. H. Wingate, city engineer.*

Spottsylvania—Gold and Pyrites Mining.—Arrangements are being made for reopening the Whitehall gold mine, located in Spottsylvania county, and also developing the pyrites deposits. R. Scott Allen, Philadelphia, Pa., will be in charge.

Urbanna—Ice Plant.—It is reported that J. W. Hurley has purchased and will operate the local ice plant.

WEST VIRGINIA.

Benwood—Electric-light and Power Plant. The Ohio Valley Electric Light & Power Co.

has been reorganized with W. C. Handlan, president; C. P. Kinney, vice-president; John F. Frasher, general manager; William H. Snyder, secretary-treasurer. The capital stock will be increased for the purpose of making improvements, the nature of which will be determined by a committee composed of W. C. Handlan, John F. Frasher and William H. Snyder.

Bolivar—Medicine Factory.—Chartered: The Native Herb Remedy Co., capital stock \$25,000, to manufacture proprietary medicines, by Charles R. Rau of Bolivar, Charles A. Stellings of Boston, Mass.; George R. Bready of Harper's Ferry, W. Va., and others.

Charleston—Overall Factory.—The Charleston Manufacturing Co. has purchased from L. M. LaFollette a building to which will be added another story for overall-manufacturing purposes. Purchasers have also secured 100 feet in the rear of same building, upon which will be erected a three-story structure for similar use.

Charleston—Jewelry Company.—Incorporated: The Middelburg-Moses Jewelry Co., with \$25,000 capital stock, by C. A. Middelburg, S. A. Moses, F. L. Moses and Isaac Loewenstein, to deal in jewelry.

Elkins—Timber Lands.—Incorporated: The Dunmore Land & Timber Co., with capital stock of \$100,000, to deal in timber lands, by W. H. Cobb, Joe B. Moore, J. F. Strader and others.

Elm Grove—Electric-light Plant.—It is reported that the Wheeling & Elm Grove Railway will make extensive improvements at plant, installing complete electric-lighting equipment.

Gauley (P. O. Gauley Bridge)—Coal mining.—Reports state that George C. Urlin, Albert Daubert of Columbus, Ohio, and associates will organize company for the development of 14,000 acres of coal land near Gauley.

Glendale—Bed Factory.—The National Bed Co. of Moundsville, W. Va., has acquired site of three acres at Glendale, W. Va., for the purpose of erecting larger factory. Plans and specifications for buildings are being prepared. Structure will be of frame construction, equipped with a quantity of new machinery in addition to the present equipment.

Keyser—Brewery, etc.—Chartered: Keyser Provision & Brewing Co., with \$200,000 capital stock, by J. A. Luther, M. R. Bell, V. F. Alkire, J. R. Bean, W. H. Griffith, O. A. Hood and associates, to erect and operate a brewery.

Marlinton—Furniture Company.—G. E. Miller of Marlinton, W. McD. McAllister, S. E. Rice, H. M. McAllister of Covington, Va., and William M. McAllister of Warm Springs, Va., have incorporated the Marlinton Furniture Co. with \$10,000 capital stock.

Millville—Dam, Power-house and Raceway. The Winchester & Washington City Electric Railway Co. of Winchester, Va., has let contract to E. Purcell & Co. of Harrisonburg, Va., at \$56,322.50 for building proposed dam, power-house and raceway along the Shenandoah river near Millville. This company was previously mentioned as to develop the water-power of the Shenandoah river and transmit it by electricity to Winchester and other towns.

Moundsville—Coal-mining.—It is reported that George L. Hibbs of Unlontown, Pa., and E. L. Denny of Waynesburg, Pa., have purchased 1735 acres of coal land near Moundsville and will probably develop same.

Randall—Lumber Manufacturing.—Chartered: The Shriver Lumber & Manufacturing Co., with capital stock of \$25,000, for manufacturing lumber, by Lee R. Shriver of Pentress, W. Va.; E. E. Shriver, J. B. Marvin and T. E. Shriver of Randall and J. Lewis Conn of Point Marion, Pa.

Salem—Gas and Oil Wells.—Chartered: The Raccoon Oil & Gas Co., with capital stock of \$25,000, to drill for oil and gas, by George H. Trainer, George W. F. Randolph, Homer B. McKinley and George H. Ross.

St. Marys—Oil Wells.—Red Raven Oil Co. has incorporated with \$10,000 capital stock to drill for oil; incorporators, H. S. Harrop, N. E. Hopkins, J. M. Milliken of Pittsburgh, Pa.; D. J. Mulligan of Swissville, Pa., and W. H. Semmens of Turtle Creek, Pa.

INDIAN TERRITORY.

Chickasha—Oil Mills.—The Chickasha Cotton Oil Co. has begun extensive repairs and improvements on its mill, to cost \$40,000. Recently its capital stock was increased from \$500,000 to \$1,000,000.

Davis—Electric-light and Power Plant.—It is reported that J. L. Ellis and Sam A. Hobson have inspected Turner Falls with a view to establishing electric-light and power plant

for which power will be furnished by Turner Falls.

Marlow—Water-works.—The city is preparing to issue bonds for \$20,000 to be used in the construction of a water-works system. George T. Putty is town attorney.

OKLAHOMA TERRITORY.

Guthrie—Development Company.—Forty-sixth State Gas, Oil, Coal, Water & Mineral Development Co. has been incorporated with \$25,000 capital stock by H. C. Hargus, T. M. Polson and A. Y. Shaw of Pawhuska, O. T.

Guthrie—Cotton Compress.—Arrangements have been made by the Guthrie Commercial Club with the Traders' Compress Co. for the erection of a \$150,000 compress.

Mountain Park—Irrigation System.—The Otter Creek Irrigation Co. has been formed with a capital stock of \$1,000,000 to establish irrigation system. It will build dam 300 feet long and 70 feet high, to have capacity of 40,000,000-acre feet during dry year and 80,000,000-acre feet during wet year. Reservoir will cover 10,000 acres. Judge Hankins is president. Joseph W. Bailey of Gainesville, Texas, and John H. Stephens of Vernon, Texas, are among the directors.

Oklahoma City—Cracker Factory.—E. L. Leach and Eli Brown have purchased cracker factory and contemplate organizing company with \$25,000 for the purpose of repairing and enlarging the plant.

BURNED.

Baltimore, Md.—Hay Shed.—Baltimore & Ohio Railroad Co.'s hay shed; loss \$10,000; D. D. Carothers, chief engineer.

Benford (P. O. Corrigan), Texas.—The West Lumber Co.'s saw-mill; loss \$8000.

Benford, Texas.—West Lumber Co.'s saw-mill; loss \$8000.

Caneyville, Ky.—Harned Bros.' store; loss \$13,000.

Clarksville, Texas.—L. P. Patton's cotton gin; loss \$11,000.

Decatur, Ala.—A. G. Bethard's planing mill; loss about \$5000.

Enigma, Ga.—Hammond Brothers' saw and shingle mill; loss about \$3000.

Hyde Station, La.—Mrs. C. F. Hyde's saw-mill; loss \$8000.

Johnson City, Tenn.—C. H. Lyle's barn; loss \$7500.

Joplin, Mo.—Bartlett Steel Co.'s plant; loss nearly \$50,000.

Kabetown, W. Va.—W. H. Moreland's water power flour mill; loss \$2000.

Kansas City, Mo.—D. A. Marr Transfer & Storage Co.'s warehouse; loss \$24,000.

Kansas City, Mo.—The Kansas City Milling Co.'s mill, warehouse and elevator; loss \$100,000.

Livermore, Ky.—John W. Goodman's livery stable.

Louisville, Ky.—J. D. Baldridge Tobacco Co.'s engine and dry rooms in tobacco factory; loss \$10,000.

Nashville, Tenn.—Lieberman, Loveman & O'Brien's planing mill and box factory; loss \$20,000.

Shawnee, O. T.—The Roller & Morris livery barn; loss \$10,000.

Sherman, Texas.—Sherman Ice Co.'s plant.

Waco, Texas.—The Cooper Grocer Co.'s plant; loss \$100,000.

Winchester, Miss.—J. A. Wetherbee's saw-mill; loss about \$3500.

BUILDING NOTES.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Agricultural College, Miss.—Dairy Building, etc.—A. J. Moore, secretary Mississippi A. & M. College, will receive bids until August 14 for the erection of dairy building, working boys' quarters and several residences. Plans and specifications can be obtained from R. H. Hunt, architect, Nashville, Tenn., or the secretary. Usual rights reserved.

Aiken, S. C.—Warehouse.—A company is being organized by H. M. Dibble, M. T. Holley, Jr., D. H. Crosland and others to erect a cotton warehouse.

Albany, Ga.—Laboratory.—Sealed proposals will be received until noon August 12, 1905, at the office of Penny & Wachendorf Company, architects, Atlanta, Ga., to erect three-story brick chemical laboratory, according to plans and specifications prepared by them, for the Georgia School of Technology.

Albertville, Ala.—Warehouse.—W. W. Curry, Dr. A. L. Holliday, J. F. Hooper and

Roberts Brothers have organized a company to erect a large stone fireproof warehouse.

Alexandria, La.—Lodge Building.—Alexandria Lodge No. 546, B. P. O. Elks, has purchased site on which to erect proposed \$6000 building.

Anniston, Ala.—School Building.—Thomas Wolsoncroft & Co. have contract for the erection of proposed school building.

Atlanta, Ga.—Theater, etc.—The Ponce de Leon Amusement Co., James G. Rossman, president, contemplates making improvements to the casino and grounds at Ponce de Leon Park; office, Peters Building.

Birmingham, Ala.—Business Building.—C. M. Allen has contract to erect four-story building 50x82½ feet for Major Joseph Hardie, replacing structure recently burned. Miller & Martin prepared the plans.

Brookhaven, Miss.—Bank Building.—The Commercial Bank will erect a bank building. Structure to be of pressed brick, plate glass, etc. Architect has been engaged and is now preparing plans and specifications.

Brookhaven, Miss.—Bank Building.—The Bank of Brookhaven will erect a bank building two stories high, of pressed brick and plate glass, etc.

Cabot, Ark.—Hotel.—S. S. Neely has engaged Ely Blount of Little Rock as architect to prepare plans and specifications for the erection of his proposed hotel at Cabot.

Centerville, Md.—Opera-house.—The Centerville Opera-house Co., recently reported to be organized for the erection of an opera-house, will build a three-story structure 59.4x151 feet; exterior of concrete block, with slag or slate roof, to cost about \$20,000. A 50-light gas machine will be installed. John D. Thompson, Jr., Ford Building, Wilmington, Del., prepared the plans. James A. MacAllen, Princess Anne, Md.; W. B. Pilchard, Pocomoke City, Md.; Collins & Cohee, Dover, Del.; W. S. & A. M. Culp, Chestertown, Md., and C. R. Watters, Centerville, Md., are estimating on the construction; bids to be opened August 10.

Charleston, S. C.—Association Building.—H. T. Zacharias has contract at \$887.49 for making proposed improvements to Y. M. C. A. building.

Charles Town, W. Va.—Dwelling.—H. P. Cline has contract to erect proposed two-story pressed-brick residence 27x35 feet for Mrs. Frances Gibson.

Chattanooga, Tenn.—Mercantile Building.—L. A. Hitzfeld will superintend the construction of five-story building 88x150 feet, to cost \$35,000.

Chattanooga, Tenn.—Fire Hall.—The Board of Public Works has purchased site on which to erect proposed fire hall.

Clarendon, Ark.—Office Building.—M. J. Manning will build a three-story office building. He has ordered plans and specifications from Gibb & Sanders of Little Rock.

Clarendon, Ark.—School.—Gibb & Sanders of Little Rock, Ark., have been engaged to prepare plans and specifications for erection of the city's proposed 10-room school building; structure to include auditorium to seat 50 persons, also heating and ventilating apparatus of modern character.

Clarksburg, W. Va.—School Building.—Bishop P. J. Donahue of Wheeling, W. Va., will furnish half the funds for the erection of school building to accommodate about 400 students; cost \$20,000.

Columbus, Ga.—Engine-house.—City council has authorized Mayor Chapel to sign contract with M. C. Barlow for the erection of engine-house. Structure will cost approximately \$5000.

Chickasha, I. T.—Church.—The Baptists will erect church building to cost \$20,000; Rev. J. S. Bennett, pastor.

Dallas, Texas—Warehouse.—Sanger Bros. will build warehouse five or six stories high, 150x200 feet. It is reported the architect has not been engaged.

Dallas, Texas—Theater.—The Dallas Amusement Co., reported last week, will cost about \$30,000; structure will be equipped for heating with steam, lighting by electricity, etc. John A. Sinclair has the general contract except lighting and heating. The Keyser-Mozier Company, Juanita Building, is the architect.

Durham, N. C.—Church.—Cram, Goodhue & Ferguson, 170 Fifth avenue, New York, N. Y., are preparing plans for edifice for St. Philip's Episcopal Church, previously reported to be erected at a cost of \$20,000. Contract for the erection will be let about September 15. S. S. Bost is pastor.

Durham, N. C.—School Building.—Sealed bids will be received until 31st of August for construction of a school building. The plans and specifications can be seen in office of superintendent of city schools at Durham, or in office of Wheeler, Runge & Dickey,

architects, at Charlotte, on and after August 14; board of education to open bids.

Ensley, Ala.—Store and Lodge Building.—D. W. Morris & Bro. have let contract to Thomas Culpeper, contractor, for the erection of store and lodge building to cost about \$12,000; structure will be of brick, stone and marble, 150x50 feet, two stories high for 50 feet and one story for 90 feet; first floor to be used for storerooms and second floor for lodgeroom.

Fairmont, W. Va.—Dormitories.—The regents of the State Normal School have commissioned A. C. Lyons to prepare plans and specifications for the erection of school dormitories to cost \$17,500.

Fort Worth, Texas—Business Building.—L. J. Polk, W. H. Smith and J. H. Thrasher have let contract for the erection of two-story building 50x100 feet of brick, to cost \$20,000.

Fort Worth, Texas—Orphans' Home Buildings.—The Masonic Grand Lodge has awarded contract to E. Gardner of Dallas, Texas, at \$23,000 for erection of boys' annex and to the Texas Building Co. of Dallas for erection of auditorium at \$509. These bids do not include heating, plumbing and wiring.

Fort Worth, Texas—Residence.—Dr. W. A. Durringer will build brick residence. Plans have been prepared by L. B. Weiman, and the contract let to Heck & Ulander; residence will cost \$20,000.

Frederick, Md.—Hotel.—Frank L. Stoner, Robert H. Pollock, W. F. Thomas, Clinton J. Huff and J. E. Laferty have incorporated the Frederick Hotel Co. with \$60,000 capital stock to erect and operate a hotel.

Gadsden, Ala.—Bank Building.—The First National Bank has awarded contract to W. T. Christopher at about \$15,000 for the erection of its proposed bank building. Structure to be three stories high, of brick and stone, 32x80 feet, after plans and specifications by Bearden & Foreman of Chattanooga, Tenn.

Gaffney, S. C.—Cotton Warehouse.—A. N. Wood will build cotton warehouse, two compartments of 50x66 feet each, ordinary fireproof construction, after plans and specifications by C. A. Mebane, special agent, Greensboro, N. C. L. Baker has the contract for erection.

Gastonia, N. C.—Warehouse.—B. H. Parker will erect cotton warehouse of brick, one story high, 100x100 feet, consisting of two rooms 50x100 feet.

Goldboro, N. C.—The local lodge of Odd Fellows has purchased site on which to erect building.

Gray, Ga.—Courthouse.—An election will be held on the 29th of August to vote bonds for the erection of courthouse. Address Town Clerk.

Hancock, Md.—Bank Building.—The First National Bank will erect bank building.

Hayre de Grace, Md.—School Building.—The school board of Harford county, Charles T. Wright, secretary, rejected bids for the erection of proposed annex to the high school and commissioned Architect Plack of Philadelphia, Pa., to prepare revised plans and specifications. New bids will be invited in the course of several weeks.

Houston, Texas—Church.—Cumberland Presbyterian congregation has awarded contract to C. E. Shapley at \$6250 for the erection of its proposed edifice, after plans and specifications by Architect A. N. Dawson.

Hugo, I. T.—School Building.—Bids will be opened August 20 for erection of two-story brick and stone school building at Hugo. Plans and specifications can be seen at office of the architect, H. T. Phelps, San Antonio, Texas, and of president of school board, B. W. Caldwell, in Hugo. Certified check for \$500 must accompany bid. For further details address Mr. Caldwell.

Jacksonville, Fla.—Office Building.—Owen & Son have contract to erect the Realty Title & Trust Co.'s proposed building after plans by Rutledge & Holmes; to be four stories, 75x100 feet, of brick and stone, fireproof construction, and equipped with steam heat, two passenger elevators, etc.

Johnson City, Tenn.—Store and Office Building.—Grading has begun on the site of proposed store and office building for Robert Burrow of Bristol, Tenn. Structure will be of brick, 60x80 feet, two stories high, costing \$7500.

Knoxville, Tenn.—College Building.—M. E. Parmelee, architect, has prepared plans and specifications for erection of building for Carson & Newman College; structure to be three stories and basement, 36x135 feet, of brick and concrete with stone trimmings, steam-heating plant, electric-lighting fixtures, electrical equipment for lighting, slate roof; estimated cost \$13,000.

Kosciusko, Miss.—School.—Bids will be opened August 22 for the erection of an annex

to public schools according to plans and specifications on file in office of W. M. Noah, mayor, and S. P. Rimmer, Jr., city clerk.

Lampasas, Texas—City Hall.—The city council has authorized the building committee to erect City Hall. Address The Mayor.

Liberty, Mo.—Church.—Proposals will be opened August 19 for the erection of church building after plans and specifications on file, and copies of which can be obtained by contractors addressing Chairman of Building Committee R. G. Frank.

Little Rock, Ark.—Hotel.—Mann & Downey have been ordered to prepare plans and specifications for the erection of the proposed Hotel Marion, and it is stated that proposals for the construction work are to be opened September 14.

Little Rock, Ark.—Residence.—C. J. Kline has decided upon the erection of a concrete-block residence to cost \$6000.

Little Rock, Ark.—Hospital.—The Board of Trustees of the Confederate Home, John G. Fletcher, chairman, will receive bids until September 4 for the erection of a hospital building. Plans and specifications can be seen at the office of Charles F. Martin, acting secretary. Usual rights reserved.

Livingston, Tenn.—Jail.—Overton county contemplates expending from \$5000 to \$9000 for the erection of jail building or to repair old jail at a cost of from \$3000 to \$5000. Plans and specifications and estimates are being received by a committee, which includes J. N. Cannon, county judge.

Logan, W. Va.—Courthouse.—The County Court has awarded contract for proposed new courthouse to Messrs. Litz, Garland & Co. of Graham, Va. Their bid was \$40,400.

Louisville, Ky.—School Building.—The School Board, A. H. Brachey, president, has awarded contract at \$13,311.75 for addition to school building at 9th and Magazine streets.

Lynchburg, Va.—Association Building.—Plans by Frye & Chesterman have been adopted for the erection of \$50,000 Y. M. C. A. building, previously mentioned.

Marianna, Fla.—Business Building.—W. W. Alfred, Pensacola, Fla., has prepared plans for a three-story brick building 50x75 feet to be erected by Mr. Kehoe.

McBowell, W. Va.—School.—Bids will be opened September 1 for the erection of school-house after plans and specifications on file in office of the McBowell Coal & Coke Co. For information address Northfork Board of Education, T. M. Jervis, secretary.

Memphis, Tenn.—Apartment-houses.—E. D. Patterson, Jr., has purchased site 200x300 feet and contemplates erecting four apartment-houses, of brick and stone, three stories high, to cost about \$200,000.

Memphis, Tenn.—Church.—L. M. Weathers & Co., architects, have awarded to Allison & Street contract for the erection of the Georgia Street Negro M. E. Church; building will be of brick and will cost about \$8000.

Memphis, Tenn.—Dwelling.—Mrs. George Shilling has commissioned L. M. Weathers & Co., architects, to prepare plans and specifications for one-story frame residence to cost about \$5000.

Memphis, Tenn.—Apartment-house.—George C. Bennett has ordered Chighizola, Harker & Cairns, architects, to prepare plans and specifications for the erection of his proposed flats building, 100x126 feet, six stories high, to cost about \$200,000; building to be of brick, stone and steel construction, fireproof, passenger and freight elevators, etc.

Memphis, Tenn.—Church.—L. M. Weathers & Co., architects, have awarded contract to Allison & Street at about \$8000 for the construction of the proposed edifice for Georgia Street Methodist Church.

New Orleans, La.—Dwelling.—Thomas Madden has secured permit for the erection of proposed \$6500 residence.

New Orleans, La.—Building.—Mrs. H. M. Maxwell will erect a two-story frame and brick building to cost \$11,800.

New Orleans, La.—Hotel.—Incorporated: Hotel Bruno Co., Ltd., with \$40,000 capital stock, by Bruno Schlegel, Frank B. Thomas, Frank Zengel, John R. Loomis and Edmund Wegener, to operate a hotel.

Newport News, Va.—Courthouse.—Barbour & Seay have received contract at about \$10,000 for proposed improvements to Warwick county courthouse; new addition 33x32 feet and repairs, brick, iron and cement construction, hot-water heating apparatus, electric-lighting fixtures; C. M. Pierce, architect in charge.

Newton, N. C.—School Building.—Wheeler, Runge & Dickey, architects, Charlotte, N. C., have been commissioned to prepare plans and specifications for 10-room school building.

Oklahoma City, O. T.—Apartment-house.—Moritz Rosenfield has secured permit for the

erection of four flats 86x131 feet, two stories high; estimated cost \$26,000.

Oklahoma City, O. T.—Jail Building.—Oklahoma county has voted affirmatively the \$30,000 bond issue, previously reported, for the erection of jail building. Address County Clerk.

Oklahoma City, O. T.—Dwelling.—Robert Duffield has contract to erect residence for J. T. Riley, previously reported; to be equipped with hot-water-heating apparatus, electric lights, etc. J. L. Loddell prepared the plans.

Pensacola, Fla.—W. W. Alfred has completed plans for D. H. Wilson's proposed residence.

Pine Bluff, Ark.—Courthouse.—Frank W. Gibb, architect, Little Rock, Ark., is preparing plans and specifications for an annex to the Jefferson county courthouse.

Richland, Ga.—Warehouse.—Coffin Bros. & Co. have begun the construction of warehouse, two stories high, 50x130 feet, for storage of cotton, etc.

Richmond, Va.—School Building.—Charles K. Bryant, architect, will begin this month preparation of plans for proposed high-school building.

Rock Hill, S. C.—Municipal Building.—Contract has been awarded to J. S. Starr for the erection of municipal building at \$5140; structure to be two stories high, 50x90 feet. Plans and specifications by E. T. Carter, architect.

Rock Hill, S. C.—Public Building.—J. S. Starr has been awarded contract for the erection of city building at \$5140; work to be completed by January 1, 1906; Avery Carter, architect.

Saltville, Va.—Public Building.—W. H. Musser of Abingdon, Va., has been awarded contract for the erection of public building for Saltville. Structure will be two stories high, the upper one being designed for public gatherings and lower one for schoolrooms; cost to be \$15,000.

San Angelo, Texas.—School Buildings.—The city has voted \$30,000 of bonds for the erection of schoolhouses. Address The Mayor.

Savannah, Ga.—Dwelling.—M. J. Kavanaugh has awarded contract to Peter Rabey for the erection of two-story dwelling after plans and specifications by Percy Sugden, architect. Inside finishing will be of white enamel and floors of hardwood, except bathroom, which will be of tile; cost about \$10,000. Stable and servants' quarters will also be erected.

Savannah, Ga.—Church.—Bids will be opened August 23 for the erection of brick church at Bolton and West Broad streets. Address J. H. Hooker, 23 West Boundary street.

Shreveport, La.—Lodge Building.—Andrew Querles, president building committee, will receive bids until October 7 for furnishing material and labor and for the erection and completion of a three-story brick, terra-cotta and steel-framed building for the B. P. O. Elks No. 122, Shreveport, La. Plans and specifications and full particulars may be had by applying to the architect, A. J. Armstrong, Shreveport. Plans and specifications will also be on file at the office of the American Contractor, 40 Dearborn street, Chicago, Ill.; office of W. W. Rose, architect, Kansas City, Mo.; Southern Architectural Cement Stone Co., 311 Elm street, Dallas Texas; Room 404 Hennen Building, New Orleans, La.; and Builders' Exchange, Baltimore, Md. Certified check for 10 per cent. of amount of bid must accompany each proposal. Usual rights reserved. (This item was previously reported bids to be opened August 7.)

South McAlester, I. T.—School Buildings.—The city has voted \$125,000 of bonds for the erection of five proposed schoolhouses. Address The Mayor.

Tallahassee, Fla.—Public School.—Edwards & Walter, architects, Columbia, S. C., are preparing drawings for school building to be erected in Tallahassee; 12 rooms and auditorium; brick and stone trimmings and slate roof. Drawings will be completed about August 25, and bids will be received until September 10.

Terrell, Texas.—Hospital.—John L. Terrell, president board of managers, will open proposals August 28 for erection of hospital after plans and specifications at office of the architects, C. A. Gill & Son, Dallas, Texas, and of Mr. Terrell's office at Terrell. Buildings will include structures 80x170 feet, 100x170 feet and 40x136 feet, all three-story bricks.

Thorsby, Ala.—Warehouse.—J. K. Snyder has contract to erect fireproof building 60x120 feet for the Farmers' Warehouse & Fertilizer Co., J. Bice, president, after plans by J. F. Peterson.

Toone, Ark.—Bank Building.—The Mer-

chants and Planters' Bank has let contract to Henry Kinney of Whiteville, Tenn., for the erection of the bank building reported last week; structure to be of brick, 20x50 feet.

Waco, Texas.—School.—The city has let contract to P. A. Harris at about \$5500 for additions to school building.

Warren, Ark.—Lodge Building.—The Pythian Building Co. has been incorporated with an authorized capital stock of \$25,000 to erect lodge building. W. R. Watson is president; S. B. Meek, vice-president; H. G. Martin, secretary, and B. F. Powers, treasurer.

Washington, D. C.—District Building.—The formal contract has been signed for the erection of the District Building, James L. Parsons being the lowest bidder at \$54,300.

Washington, D. C.—Dwellings.—Harry Wardman has secured permits to erect for himself nine two-story brick dwellings to cost about \$31,000; A. H. Beers, architect. Permits have been issued also to Addison Simpson for one three-story brick building to cost about \$12,000; F. W. Schneider, architect; Harry Wardman, builder; to Harry S. Hollander to erect two three-story brick dwellings to cost about \$13,000; F. W. Schneider, architect; William F. Keenan, builder; to Mrs. W. S. Cowles to erect one three-story brick dwelling to cost about \$8000; A. P. Clark, Jr., architect; W. E. Speir, builder.

Washington, D. C.—Apartment-houses, etc. Thomas H. Melton will build 10 brick dwellings to cost \$70,000. C. G. Sloan will build three-story brick residence to cost \$12,000. P. W. Pickford will erect three-story brick apartment-house to cost \$24,500. F. W. Kahler will build two-story brick store and dwelling to cost \$16,800. L. E. Bruninger is having plans and specifications prepared for the erection of three three-story brick residences to cost \$15,000.

Washington, D. C.—School Building.—I. Pavarini has contract at \$59,000 for the erection of proposed Industrial Home School for Colored Children at Blue Plains, D. C.

Washington, D. C.—Dwelling.—A. C. Shaw has contract to erect two-story brick dwelling for F. W. Kahler after plans by F. W. Madford; cost \$16,800.

Washington, D. C.—Apartment-house.—Percy W. Pickford will erect apartment-house at a cost of \$24,000 after plans by W. S. Plager.

Wheeling, W. Va.—Lodge Building.—J. W. Beltz & Son have contract to make proposed improvements to the I. O. O. F. Building.

RAILROAD CONSTRUCTION.

Railways.

Apalachicola, Fla.—J. H. Trump, secretary of the Apalachicola Northern Railway, is quoted as saying that 12 miles of line have been graded for the proposed line from St. Joseph's Bay, Fla., to Bainbridge, Ga. The route is via Apalachicola, River Junction and Quincy, Fla., and is 125 miles long; contractors, the Morey Engineering & Construction Co. of St. Louis, Mo.; W. A. Hunnicke, chief engineer, and Charles B. Duffy, president, both at Apalachicola.

Atlanta, Ga.—The Atlanta-Macon Interurban Railway Co. has, it is reported, been granted its charter, for which application was made several weeks ago. The line will run from Atlanta via Jonesboro, Hampton, Griffin, Barnesville and Forsyth to Macon. Thos. B. Felder, Jr., of Atlanta and others are the incorporators, as heretofore noted.

Batesville, Ark.—The Missouri, Arkansas & Southwestern Railway Co. is reported to have let to Bodkin & Moore of Memphis, Tenn., the contract to grade its line, which will be 140 miles long. The first section is of 50 miles from Batesville to a point on the Frisco system.

Birmingham, Ala.—The Lathrop-Hatten Railway will, it is reported, build its proposed extension of five miles from Reedsville to the Coosa river. F. H. Lathrop is president at Birmingham.

Charlotte, Tenn.—Wm. Shipman is general manager, and W. C. Thorbus, secretary-treasurer of the proposed Tennessee Industrial Railroad; H. B. Farrar of Jackson, Tenn., chief engineer.

Chelsea, I. T.—Maney Bros. of Oklahoma City, O. T., have the contract for building the Oklahoma & Cherokee Central Railroad from Chelsea to the Verdigris river, 14 miles, and one mile has already been graded. Line is to reach Bartlesville, Pryor Creek and a new town called Alluwe.

Chicago, Ill.—The Mississippi Valley & Gulf Railway Co. is reported to have organized by electing W. I. Allen as president; Theodore Rockenfeller, vice-president, and Elmer L. Gochanour, secretary and treasurer; office, 939 First National Bank Building.

Cincinnati, Ohio.—The Cincinnati, Burnside & Cumberland River Railroad Co. has been incorporated in Kentucky with \$250,000 capital to build a line four miles long from Burnside Junction on the Cincinnati Southern Railway via Burnside Landing to Tateville. The incorporators are C. W. Cole, A. Telford and J. W. Hood of Cincinnati, M. F. Molloy of Carthage, Ohio; Murray B. Hubbard of Covington and C. B. Forse of Newport, Ky.

Cleburne, Texas.—Reported that contracts have been let to Johnston Bros. of St. Elmo, Ill., for the extension of the Trinity & Brazos Valley Railway from Mexia to Houston, about 160 miles. M. Sweeney is general manager at Cleburne.

Cleveland, Ohio.—St. Louis & Northwestern Railroad, I. K. Pierson, chief engineer, 416 Cuyahoga Building, Cleveland, is reported as saying that survey is complete and 80 per cent. of right of way secured. Will be 120 miles long from Mokane, Mo., to Brookfield, Mo., via Fulton, Millersburg, Columbia, Fayette, Roanoke, Salisbury and Marceline, Mo.

Chicago, Ill.—Reported that the Chicago, Rock Island & Pacific Railway will divert its line across the South Canadian river to a point 1½ miles west of Union City, I. T., necessitating the change of several miles of track. W. L. Darling is chief engineer at Chicago.

Dallas, Texas.—Orton G. Campbell of Dallas and others of this city are reported to be working on a plan to build a railroad from San Saba, Texas, to Lometa on the Santa Fe line.

Dallas, Texas.—The Texas Traction Co. is reported to be surveying for its proposed line from Dallas to Sherman, Texas, about 60 miles. J. F. Strickland of the Dallas Securities Co., Dallas; Jesse Shain of McKinney, Texas; S. S. Dumas of Van Alstyne, Texas; W. R. Brents and W. C. Eubank of Sherman, Texas, and W. H. Beane of Howe, Texas, besides others, are interested.

Denver, Col.—An officer of the Colorado & Southern is reported as saying that a new railroad will be built from Washburn, on the Colorado & Southern near Amarillo, Texas, to Comfort, Texas, on the San Antonio & Aransas Pass line, about 400 miles. The Rock Island is said to be interested. W. L. Darling, chief engineer of the latter at Chicago, or H. W. Cowan, chief engineer of the Colorado & Southern at Denver, may be able to give information.

Durham, N. C.—The Durham & South Carolina Railroad will, it is reported, issue \$500,000 of bonds for the construction and equipment of its line from Durham to a point on the Seaboard Air Line near New Hill.

Fourche, Ark.—Reported that the Fourche River Valley & Indian Territory Railroad will be built by the Fourche Lumber Co. from Fourche on the Choctaw, Oklahoma & Gulf Railroad to Jennings, La., about 40 miles, right of way having been secured.

Gainesville, Ga.—E. L. Douglass, general manager of the Gainesville Midland Railroad, is reported as saying that work has not yet started on its proposed extension from Jefferson to Athens, Ga., 18 miles. Possibly the recent incorporation of the Gainesville & Athens Construction Co. at Savannah has something to do with this line.

Galveston, Texas.—C. F. W. Felt, chief engineer of the Gulf, Colorado & Santa Fe Railway, writes the Manufacturers' Record that press reports relating to extension of the Lampasas branch are unauthorized, and also that nothing of the kind is now contemplated.

Gibbsland, La.—Major J. D. Beardsley of Gibbsland is reported to have closed arrangements to build a railroad about 80 miles long from Abilene, Texas, northward to Munday, Texas. R. Colbert, cashier of the Gibbsland State Bank, is said to be associated with Major Beardsley in the enterprise.

Hattiesburg, Miss.—The Mississippi Central Railroad Co. is reported to have decided upon an extension from Brookhaven to Natchez, Miss. M. H. McCabe is superintendent at Hattiesburg.

Hendersonville, N. C.—The Appalachian Interurban Railway Co., in aid of which bonds may be voted by several counties, proposes to build electric lines as follows: Asheville to Fletcher, with spur to Fairview, and another line by Mills river, with spur to Davidson river, Brevard, Toxaway and Sapphire. From Asheville a line would be run to Waynesville; a line from Hendersonville to Greenville, S. C., and parallel lines to Chimney Rock, with a loop from there, taking in Columbus, Spartanburg, Gaffney, Caroleen, Rutherfordton and returning to Chimney Rock. The officers of the company are W. A. Smith, president; F. M. Stearns, vice-president; J. W. Wofford, secretary; J. Williams, treasurer, and R. C. Clark, H. G.

Ewart, W. F. Edwards, W. A. Garland and J. L. Orr, members of the executive committee.

Houston, Texas.—The Houston, Beaumont & Red River Construction Co. is reported to have let a contract to P. R. Turney for the first 40 miles of the railroad projected by Edward Kennedy to run from Houston to Leesville and Alexandria, La. Other contracts will be let as soon as surveys and profiles are approved. Line is to be from Houston via North Dayton (Myrtle Ridge), Perryman, Batson, Saratoga, Kountze and Jasper, Texas, and Leesville, La., to Alexandria.

Lexington, O. T.—The Oklahoma City, Lexington & Sulphur Springs Railway has been granted a franchise to build its proposed line, connecting the three places named in its title. George A. Teague is secretary at Lexington.

Livingston, Tenn.—Mr. E. C. Knight, general counsel and treasurer, writes the Manufacturers' Record that active construction has begun on the Overton County Railroad from a connection with the Tennessee Central in Putnam county to Livingston. The Cumberland Construction Co., H. E. Overstreet, president, and H. E. Speyer, general superintendent, both of Chicago, but now at Livingston, is building the line; completion expected by February or March 1 next. W. M. Breeding is president, and Phil Wheel, secretary of the railroad. Mr. Knight also says that B. & P. Armitage of Philadelphia are no longer connected with the plan.

Lyons, Ga.—R. M. Garbutt, president of the Garbutt & Donovan Short Line, is quoted as saying that an extension is under construction from Lyons to Selmar, Ga.

Macon, Ga.—Reported that the Gainesville & Gulf Railroad in Florida has been sold and that S. F. Parrott, vice-president of the Georgia Southern & Florida at Macon, has been elected president of the line. It is said that the latter company will build an extension to Tampa, Fla. J. J. Gallard is chief engineer at Macon. F. M. Simonton of Tampa, Fla., and A. P. Stuckey and B. W. Blunt of Ocala, Fla., purchased the road. Mr. Stuckey and Mr. Blunt were elected vice-presidents.

Morgantown, W. Va.—The Morgantown & Kingwood Railway is reported to have let contracts for its extension from Kingwood to the Cheat river bridge, 10 miles to H. Renick and Weaver & Zevely of Morgantown. Bids will be received immediately for eight miles from the bridge to Rowlesburg.

Mountain City, Tenn.—The Tennessee & Southeastern Railway Co. has been chartered to build a narrow-gauge line from Shouns in this (Johnson) county along the south fork of Roan's creek to the North Carolina State boundary near Trade, Tenn. The incorporators are R. E. Donnelly, W. G. McCain, Jas. P. McCain, H. T. D. Willis and Joseph S. Donnelly.

New York, N. Y.—Edward Lauterbach, owner of the right of way of the proposed Baltimore & Drum Point Railroad, is quoted as saying that he has given an option on the property to A. L. Schulte of Schulte & Arnold, railroad contractors, 150 Nassau street, New York, who may purchase it. This explains the press report that preparations were being made to resume work on the line from Baltimore to Drum Point, Md., about 90 miles.

Opelika, Ala.—Contracts have, it is reported, been let to build an electric railroad from Opelika to Auburn, six miles, by the Opelika Railway, Light & Power Co. Altogether 10 miles of track are to be laid. J. B. Greene, vice president of the Bank of Opelika, can give information.

Pensacola, Fla.—Reported that a permanent organization of the Pensacola, Alabama & Western Railway will be effected this fall. Preliminary survey from Pensacola to Memphis, 400 miles, completed. Surveys for several branches begun. Estimates for building the line are being prepared. Wm. H. Knowles of Pensacola is president. J. I. Miller, Selma, Ala., is chief engineer.

Perry, Fla.—The Atlantic Coast Line is reported to be pushing work on its extension from Newberry to Perry. Wade & Bell are the contractors. The West Peninsular Railroad is reported graded from Perry to Hampton Springs.

Pine Bluff, Ark.—The proposed line of the Pine Bluff & Southern Railway is from Pine Bluff to Monticello. William H. Langford and Robert G. Atkinson of Pine Bluff are among the directors.

Port Arthur, Texas.—The Port Arthur & Houston Short Line is reported to have finished its permanent survey as far as Old river. Hans Falkenberg is chief engineer.

Portsmouth, Va.—The Seaboard Air Line will, it is reported, build a connecting line

from Elberton, Ga., via Augusta, to a point on its line to Savannah for the purpose of providing a short route from Atlanta to the sea. A year ago the Augusta & Elberton Railroad Co. was formed, and this spring the Savannah River Railroad Co. was organized, both at Augusta, to cover this territory, the eastern connection to be made with the Seaboard at Clio, Ga. Some work has been done on the former. C. B. Young of Augusta is its president. The incorporators of the second company are Fred T. Lockhart and others of Augusta. W. W. Gwathmey, chief engineer of the Seaboard Air Line at Portsmouth, Va., may be able to give information.

Portsmouth, Va.—The Atlanta & Birmingham Air Line Railway (Seaboard Air Line) will, according to a report from Birmingham, Ala., build a spur from Parsons, Ala., three and one-half miles, to mines of the Tennessee Coal, Iron & Railroad Co. in St. Clair county, Alabama. W. W. Gwathmey is chief engineer at Portsmouth, Va.

Portsmouth, Va.—The Seaboard Air Line is reported to have made a permanent survey from Thomas City, Fla., to Perry, Fla., and it is said that construction will soon begin. W. W. Gwathmey is chief engineer at Portsmouth, Va.

Quitman, Ga.—Reported that J. W. Oglesby, president of the South Georgia & West Coast Railroad, will build a line to connect the White Sulphur Springs, in which he has bought an interest, with Gainesville, Ga., or else with another point on the Southern Railway.

Savannah, Ga.—Mr. H. M. Steele, chief engineer of the Central of Georgia Railway, writes the Manufacturers' Record that the Tunnel Coal Co. is building a spur track to reach its coal lands, line to be about 11 miles long, connecting with the Central of Georgia. Redmond & Gabbett have the contract for the entire work, to be finished early in November.

Savannah, Ga.—Reported that the Central of Georgia Railway has started survey for a branch railroad from Carrollton, Ga., towards Bowden, Ga., and Graham, Lamar and Roanoke, Ala., about 40 miles. H. M. Steele is chief engineer at Savannah.

St. Augustine, Fla.—G. T. Butler and Robert Hanson are reported to be making a preliminary survey for the electric railway projected by the St. John Power Co.

St. Louis, Mo.—The Mobile & Ohio Railroad, according to a report from Birmingham, Ala., will build a line into that city within a year. R. V. Taylor is general manager at St. Louis.

St. Louis, Mo.—Reported that the Mobile & Ohio Railway may build a branch five miles long into the Hurricane Creek coal district of Tuscaloosa county, Alabama. R. V. Taylor is general manager at St. Louis.

St. Louis, Mo.—The Missouri Pacific is reported to have begun the extension of the Bagwell branch to a connection with the White River line near Galena, Mo.

St. Louis, Mo.—Mr. E. F. Mitchell, engineer of construction Missouri Pacific Railway, writes the Manufacturers' Record that contract has been awarded to the Dalhoff Construction Co. of Little Rock, Ark., for the building of the Gurdon & Fort Smith Railroad between Antioch, Ark., and a point near Caddo Gap, Ark., about 34 miles; also for six miles of the Gurdon & Fort Smith Northern Railway, extending northward from a connection with the Gurdon & Fort Smith Railroad. Work will begin immediately. Mr. C. H. Smith is engineer in charge. Expected that line will be ready for operation early next year.

Sweetwater, Texas.—The International Construction Co. of Sweetwater has filed its charter. The incorporators are H. C. Hord, Thomas Trammel and E. E. Holmes. Mr. Hord is attorney for the Kansas City, Mexico & Orient Railway in Texas, the local corporation being the Panhandle & Gulf Railway.

Toledo, Ohio.—Clifford Buxton, chief engineer of the Toledo & Ohio Central and the Kanawha & Michigan railways, writes the Manufacturers' Record that surveys and estimates have been made for an extension of the Kanawha & Michigan in West Virginia up Gauley and Meadow rivers, but it has not been decided to build the line.

Trinity, Texas.—Lamb & Hausen of Houston and San Antonio are reported to have been awarded the contract to build the first 20 miles of the Beaumont & Great Northern Railroad projected by William Carlisle of Atchison, Kan., and others.

Union, Miss.—The Gulf States Investment Co. has applied for a charter, and proposes, among other things, to operate electric railways. Among the incorporators are S. M. Jones, F. L. Riley and R. W. Jones.

Washington, D. C.—W. H. Wells, chief engineer of construction Southern Railway, writes the Manufacturers' Record confirming the reports that surveys have been made for the following work: Detour lines around Lynchburg, Va.; the Northern Alabama Railway's line from Delmar to Jasper, Ala.; a line from the Ensley Southern Railway to Parrish, Ala., and branches to the mines of the Pratt Consolidated Company. Mr. Wells further writes that nothing has been definitely decided with regard to building any of these projections.

Washington, D. C.—Reported that the Southern Railway will survey for a track from Greenville, S. C., to the quarries of the Paris Mountain Granite Co. W. H. Wells is engineer of construction.

Westminster, S. C.—J. J. Haley writes the Manufacturers' Record that the Oconee County Railway Co. proposes to organize for building an electric railway from Westminster to Seneca, S. C., via Oakway, Tokeena and Tugaloo to Fair Play and Townville, S. C., 21 miles. It will divide at Oakway, one section going via Tokeena to Townville and other via Tugaloo to Fair Play.

Wichita, Kan.—Reported that A. Nelson, president of the Wichita Electric Co., is backing a plan to build a line from Joplin, Mo., to Springfield, Mo., via Aurora, Monett and Pierce City.

Wilmington, N. C.—The Waccamaw Railroad Co. has been chartered to build a line from Old Town to Lake Waccamaw, about 50 miles, via Belton and Manlyville. The directors are E. Nelson, Detroit, Mich.; E. S. Hartwell, Chicago, Ill.; J. E. Clark, C. E. Clark, E. H. Williams and W. H. Chadbourne, all of Wilmington, N. C.

Wilmington, N. C.—Reported that the Southport, Northern & Western Railroad Co. has started a petition for a bond election to aid in building a railroad from Southport to the West Virginia coal fields and thence into Ohio and Illinois.

Yellville, Ark.—Officials of the Mineral Belt Traction Co. are reported as saying that a line will be built from Pyatt via Dodd City and Lead Hill to Kingdon Springs. A. J. Bradford is president; E. W. Swartz, secretary.

Street Railways.

Brookhaven, Miss.—H. R. Fine, passenger agent of the Pearl River Railroad, and associates have, it is reported, proposed to lease the city light and water plant and to maintain an electric street railway.

Chattanooga, Tenn.—The Chattanooga Electric Railway will, it is reported, soon build an extension up Lookout mountain. An officer is quoted as saying that work will probably be started on the extension within 60 days.

Denton, Texas.—A movement is reported under way to build a street railway in Denton. The mayor may be able to give information. Newton M. Lee is said to be promoting the line.

Jackson, Tenn.—S. E. Wilson and Hunter Wilson are reported to have obtained control of the Jackson & Suburban Street Car Co. and will soon make changes and improvements.

Knoxville, Tenn.—The Knoxville Railway & Light Co. of Knox county has been chartered with \$2,000,000 capital by C. H. Harvey, E. E. McMillan, W. S. Shields, F. L. Fisher and Leon Fender. It will, it is said, absorb the Knoxville Traction Co. and the Knoxville Electric Light & Power Co.; capital \$2,000,000.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Boiler.—See "Water-works Equipment."

Boiler.—See "Engine and Boiler."

Boiler.—Proposals will be opened September 2 for furnishing and installing a 40-horse-power steam boiler at pumping station, Fort Brown, Texas, after plans and specifications on file at office of chief quartermaster, Robert R. Stevens, Fort Brown, San Antonio, Texas.

Boilers.—See "Power-house Equipment."

Books.—See "School Supplies."

Bottles.—See "Drug-factory Equipment."

Bottling Machinery.—Lucas Richardson Lithograph & Printing Co., 130 East Bay street, Charleston, S. C., wants machinery and equipment for bottling plant.

Brick Kilns.—Consolidated Wagon & Machine Co., Idaho Falls, Idaho, wants to correspond with manufacturers of steel brick kilns.

Brick Machinery.—E. M. Lewis, Moundsville, W. Va., wants information regarding the manufacture of sand-lime bricks and prices on machinery for plant.

Building Materials.—W. W. Alfred, architect, Box 261, Pensacola, Fla., wants catalogues, samples and prices on all kinds of building materials.

Building Materials.—C. A. R. Eason, 319 North Charles street, Baltimore, Md., wants subbids on cement, metal frames and sashes, wireglass, kalameined doors and electric wiring for laundry and boiler-house to be erected at Forest Park for Kelso Home.

Building Materials.—G. W. Long, New Market, Tenn., will probably be in the market for sheet iron, weatherboarding, siding and ceiling.

Building Materials.—Eugene E. Robertson, Collins, Miss., wants prices on brick, lime, roofing and plate glass.

Building Materials.—John M. Houck, the Swannanoa Chemical Co., Marion, N. C., wants prices on roofing, cement, lime, etc.

Building Materials.—D. L. Crouch, 26 Tucker street, Memphis, Tenn., wants prices on steel structural work and terra-cotta roofing.

Building Supplies.—Julian S. Starr, Rock Hill, S. C., wants prices on fire department spring door hinges and on Lenox tile.

Concrete Lock and Dam.—Bids will be received until August 31 at the United States engineer office, Nashville, Tenn., for building concrete lock and dam No. 21, Cumberland river. Information furnished on application; H. C. Newcomer, major, engineers.

Copper Smelters, etc.—Ed Frost, Krebs, I. T., wants addresses of manufacturers of copper smelters and supplies.

Concrete Mixers.—Wanted delivered at Millsville, W. Va., on the B. & O. R. R., two concrete mixers, Smith's No. 2½ preferred, or any make, new or second-hand. Address Dealer, Box 652, Richmond, Va. (See "Contractors' Equipment.")

Contractors' Equipment.—Wanted delivered at Millsville, W. Va., on the B. & O. R. R., five miles south of Harper's Ferry: Carload and less 29 to 30-pound steel rail, both new and relays, with fish plates, bolts and spikes; two steam hoists, second-hand and new, American make, double drum, with bull-wheel attachment, so that engineer can do work; two concrete mixers, Smith's No. 2½ preferred, or any make, new or second-hand; one rock crusher to crush 100 yards per day of 19 hours; one rock crusher to crush 125 yards per day of 10 hours, new or second-hand. Write promptly. Address Dealer, Box 652, Richmond, Va.

Cotton-ropes Machinery.—J. C. Steele & Sons, Statesville, N. C., want information and prices on new or good second-hand machinery for making cotton rope up to five-eighths inch in diameter, including spinning, for capacity up to about 1000 pounds per day.

Crusher.—See "Contractors' Equipment."

Ditch Construction.—By order of the County Court of St. Francis County, Arkansas, R. L. Stockard, civil engineer, will let on Wednesday, September 6, 1905, at Forrest City, Ark., to the lowest responsible bidder, contract for the construction of ditch or canal through Drainage District No. 2 in said county. Ditch to be about two and one-half miles long, requiring the removal of about 29,000 cubic yards of earth. Specifications and dimensions on file at office of T. C. Merwin, clerk of St. Francis county, Arkansas.

Drainage Work.—Bids will be opened September 5 for excavating approximately 1,000,000 cubic yards of sand and muck in constructing a main canal approximately 10 miles long; also 15 miles of laterals, requiring the excavation of about 307,000 cubic yards of sand and muck, all near Lake Worth, Dade county, Florida. Bids are to be accompanied by certified check for 3 per cent. of the amount of bid. Usual rights reserved. Plans and specifications may be obtained by addressing Guy I. Metcalf, chairman of drainage commission, West Palm Beach, Fla., or D. D. & C. M. Rogers, engineers, Daytona, Fla. Dade county commissioners, E. C. Dearborn, clerk, Miami, Fla., will open the proposals.

Dredging.—Bids will be received until September 5 at the United States engineer office, Mobile, Ala., for dredging in Mobile harbor. Specifications, blank forms and all information furnished on application; W. E. Craig-hill, major, engineers.

Drug-factory Equipment.—John M. Houck, general manager the Swannanoa Chemical Co., Marion, N. C., wants prices on tanks, pumps, piping, bottles, cans, sinks, filters, stoneware, cartons, labels, corks, printed tin boxes, chemists' supplies, bottle crates, etc.

Electrical Equipment.—C. H. Bitterman, Vicksburg, Miss., will want competitive bids on electrical equipment for printing plant.

Electrical-transmission Plant.—See "Power Plant."

Electric-light Plant.—George C. Chambers, Calhoun, Ga., wants prices on electric generator for 500 16-candle-power incandescent lamps and 10 arc lamps.

Electric-light Plant.—City of Somerset, Ky., T. R. Griffin, mayor, will let franchise August 14 to the highest bidder for the construction and operation of electric-light plant. (See "Water-works.")

Electric Motors.—See "Machine Tools."

Electric Wiring, etc.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will receive bids until August 23 for the installation of a conduit and electric-wiring system for the United States postoffice and custom-house building, Burlington, Vt., in accordance with drawings and specifications, copies of which may be had at office of supervising architect or at the office of the superintendent of construction, Burlington, Vt., at the discretion of the supervising architect.

Elevator.—Thomas & Turner, Knoxville, Tenn., wants prices on passenger elevator.

Elevator.—G. W. Long, New Market, Tenn., will want estimates on elevators.

Elevator.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids August 22 for the installation of an electric passenger and freight elevator in the west outbuilding, bureau of engraving and printing, Washington, D. C., in accordance with drawings and specifications, copies of which may be obtained on application.

Elevator.—Bids will be opened August 22 for furnishing and installing electric passenger and freight elevator in west outbuilding, Bureau of Engraving and Printing, in accordance with plans and specifications on file and to be obtained at discretion of custodian. Plans on file with supervising architect, Treasury Department, Washington, D. C.

Engine.—Longview Iron Works, G. B. McDonald, proprietor, Longview, Texas, wants prices on five-horse-power standard-make gasoline engine for cash.

Engine.—See "Hoisting Engine."

Engine and Boiler.—The Oconee County Railway Co. wants engine and boiler sufficient to generate electricity for propelling electric cars (two each way daily). Address J. J. Haley, Westminster, S. C. (See "Railway Equipment, Electric.")

Excelsior Machinery.—R. J. Briggs, Jr., State Line, Miss., wants prices on machinery for excelsior factory.

Fertilizer-factory Equipment.—J. Bice, president Farmers' Warehouse & Fertilizer Co., Thorsby, Ala., wants prices on complete equipment for fertilizer factory except boiler and power.

Grist Mill.—Lyon Bros., Heidelberg, Miss., want prices on grist mills.

Hoisting Engine.—J. Q. Dickinson & Co., Malden, W. Va., are in the market for 10-horse-power double-cylinder hoisting engine; second-hand in good condition will answer purpose.

Hoisting Engine.—Barbour & Seay, Newport News, Va., want a second-hand hoisting engine in good condition.

Hoists.—See "Contractors' Equipment."

Ice Machinery.—Marion C. Burroughs, Port Haywood, Va., wants information and prices on new and second-hand machinery and equipment for ice plant.

Ice Machinery.—Rocky Mount Ice & Fuel Co., Rocky Mount, N. C., is in the market for a good second-hand ice machine of from 50 to 75 tons capacity.

Iron and Steel.—Southern Spindle & Flyer Co., Cedar and 1st streets, Charlotte, N. C., wants prices on Sweden or Norway iron, spindle and tool steel.

Kalameined Doors.—See "Building Materials."

Kitchen Outfit.—Theo. Helsig, Beaumont, Texas, will buy kitchen outfit for apartment-house.

Labels.—See "Drug-factory Equipment."

Logging Equipment.—Foust & Gilbert, Woodward Building, Birmingham, Ala., wants to buy second-hand steam log loader with capacity of 80,000 feet per day (American preferred).

Machine Tools.—Southern Spindle & Flyer Co., Cedar and 1st streets, Charlotte, N. C., wants prices on spindle-grinding machine, gear-cutting machine, etc.

Machine Tools.—E. E. Titus, Jones, Commerce and South streets, Petersburg, Va., is in the market for first-class second-hand boring mill to take in about six feet.

Machine Tools.—Bids will be opened September 10 for furnishing machine tools at United States naval station, New Orleans; tools to include planing machines, boring and turning mill, drills, drill presses, milling machines, lathes, post shaper, keyseating and slotting machine, slotter, bolt-cutting and slotting machine, bolt cutter, pipe-threading and cutting machine, grinders, steel shafting, motors.

Machinery and Supplies.—H. E. Ploof Machinery Co., Jacksonville, Fla., wants catalogues and price-lists of machinery and mill supplies.

Metal Frames and Sashes.—See "Building Materials."

Mill Supplies.—See "Machine Tools."

Oil-mill Machinery.—J. Bice, president Farmers' Warehouse & Fertilizer Co., Thorsby, Ala., wants prices on complete equipment for cottonseed-oil mill.

Paving.—The city of Orangeburg, S. C., wants bids for constructing not less than 2500 square yards of concrete sidewalks and about 1200 running yards of curbing for same; conditions very favorable. Full information furnished on application. Address L. H. Wannamaker, city clerk and treasurer.

Piping.—See "Water-works Equipment."

Piping, etc.—City of Sanford, N. C., invites prices on 12,000 feet of four-inch and eight-inch water mains, including standard fire hydrants, lead, oakum, etc. Address W. S. Weatherspoon, mayor.

Piping and Specials.—Sealed proposals will be received at the office of the commissioners, District of Columbia, Washington, D. C., until noon August 21, 1905, for furnishing cast-iron pipe and specials for outfall sewage disposal system, District of Columbia. Specifications and blank forms of proposals can be obtained at the office of commissioners District of Columbia. Right reserved to reject any or all bids or parts of bids; Henry B. F. Macfarland, Jay J. Morrow (acting), commissioners, District of Columbia.

Printed Matter.—W. W. Alfred, architect, Box 261, Pensacola, Fla., wants addresses of firms handling printed building specifications.

Power-house Equipment.—Proposals will be received at the bureau of supplies and accounts, Navy Department, Washington, D. C., until 10 o'clock A. M., August 29, 1905, for the delivery and installation of three water-tube boilers and machinery for the power-house at the Naval Hospital, Washington, D. C. Copies of plans can be obtained upon application to the bureau of medicine and surgery, Navy Department, Washington, D. C., applications for proposals to refer to Schedule 68. Blank proposals will be furnished upon application to the bureau; H. T. B. Harris, paymaster-general, U. S. N.

Power Plant.—Proposals will be opened September 20 for furnishing and erecting in a building and foundation to be provided by the United States, and in locations within the Capitol Building, Congressional Library and the Senate and House office buildings, a power plant. Said plant to include boilers, piping, electrical transmission, cables, conduits, etc. Copies of plans and specifications and terms with which bidders must comply will be furnished on receipt of certified check for \$50. For detailed information address Department of the Interior, office of the superintendent, Capitol Building, Washington, D. C.

Printing Equipment.—Gazette Publishing Co., J. L. Warren, manager, Washington, N. C., wants prices on printing equipment and newspaper supplies; also on a linotype machine.

Pump.—See "Water-works Equipment."

Pumps.—See "Drug-factory Equipment."

Pump Manufacturers.—J. C. F. Kerr, San Antonio, Texas, wants to correspond with parties relative to manufacturing a rotary-force water pump.

Railway Equipment.—B. B. Cheney, Lumber City, Ga., wants 10 miles of 40-pound rails, good second-hand; also a locomotive.

Railway Equipment.—J. W. Johnson & Co., Racford, N. C., are in the market for 60 to 75 tons of 25 or 30-pound relaying rail.

Railway Equipment (Electric).—The Oco-

nee County Railway Co. wants estimates on rail by the mile suitable for hauling both passengers and freight, dynamos, wiring, engine and boiler sufficient in size to generate electricity to propel the cars, two each way daily, and other equipment. Address J. J. Haley, Westminster, S. C.

Railway Supplies.—Smith Bros. Planing Mill Co., Heaters, W. Va., is in the market for three miles of 30 or 35-pound new or relaying steel rails delivered f. o. b. Holly Junction, Baltimore & Ohio Railroad, West Virginia. Spot cash and quick delivery terms are invited.

Reinforced Concrete Work.—Bids will be received until September 9 at the office of J. C. Meredith, constructing engineer, Florida East Coast Railway, Miami, Fla., for the construction and completion of reinforced concrete arch work involving the expenditure of about \$6,000 cubic yards of concrete on the proposed Key West extension of the F. E. C. Railway. Specifications, forms of proposal and particulars may be obtained on application at the office of constructing engineer, where plans may be inspected. Certified check for 2 per cent. of amount of bid, payable to the Florida East Coast Railway, must accompany each bid. Usual rights reserved. Bidders are invited to be present. (This item was previously reported bids to be opened July 31.)

Road Improvements.—Road Commissioners of Prince George's county, Upper Marlboro, Md., will receive bids until August 22 for grading and macadamizing about 7000 feet of road between the District of Columbia line and Piscataway, according to plans and specifications on file at the office of the road commissioners. All proposals must be made out on regular forms furnished by the State Geological Survey and accompanied by a certified check for \$200. Usual rights reserved; J. W. P. Somerville, superintendent.

Road Improvements.—Road Commissioners of Prince George's county, Upper Marlboro, Md., will receive bids until August 22 for grading and macadamizing about one and four-tenths miles of road between District of Columbia and College Park, to be built under State supervision, according to plans and specifications on file at the office of the road commissioners at Upper Marlboro, Md. All proposals must be made on regular forms furnished by the State Geological Survey Commission, to be obtained through the office of the road commissioners. Certified check for \$200 must accompany each bid. Usual rights reserved; J. W. P. Somerville, superintendent.

Roofing.—M. B. Davis, El Paso, Texas, wants information as to the best roofing for covering porch to prevent leaking.

Roofing.—D. G. Norton, Greenville, S. C., wants information as to the best roofing for church edifice; whether slate, galvanized-tin shingles or cypress or cedar shingles would be preferable.

Roofing.—D. L. Crouch, 26 Tucker street, Memphis, Tenn., wants prices on terra-cotta roofing.

Saw-mill.—L. J. Parker Stave Co., Wildersville, Tenn., will need circular-saw outfit.

Saw-mill Equipment.—W. J. Lumsford, Hiltons, Va., wants prices on second-hand pony saw mill.

School Supplies.—C. E. Yeaton, president Shawnee Commercial College, Box 803, Shawnee, O. T., wants prices on school supplies, books, etc.

Sewerage System.—See "Piping and Specials."

Sewerage System.—Bids will be received until September 1 for constructing sewerage system for city of Roanoke, Va., in accordance with plans and specifications on file in office of J. H. Wingate, city engineer. Certified check for \$100 for each section must accompany each bid. Usual rights reserved.

Sewers.—Sealed proposals will be received until September 1 for constructing sewers for the city of Roanoke, Va., in accordance with plans and specifications on file in the office of J. H. Wingate, city engineer. Write for details.

Shingle Mill.—Lyon Bros., Heidelberg, Miss., want prices on shingle mills.

Spindle-grinding Machinery.—See "Machine Tools."

Store Fixtures.—G. W. Long, New Market, Tenn., will want estimates on showcases and store fixtures.

Street Improvement.—Sealed proposals addressed to the mayor and board of aldermen of Greensboro, N. C., will be received until the 17th of August, 1905, for material and labor for grading Elm street, in the city of Greensboro, N. C., from Church street to Lee street, with either vitrified brick, asphalt or bitulithic pavement, according to specifications on file in the office of the city engineer. Surface to be covered approximately

19,000 square yards. Certified check of \$500 to be deposited with each bid. City reserves the right to reject any or all bids. Specifications can be had by applying to W. G. Potter, city engineer, Greensboro, N. C.

Tank.—See "Water Tower."

Tanks.—See "Drug-factory Equipment."

Toothpick Machinery.—Thomasville Variety Works, Thomasville, Ga., wants addresses of manufacturers of machinery for making wooden toothpicks.

Toy Machinery.—Home Supply Co., Reelsboro, N. C., wants machinery for making toys.

Typesetting Machinery.—See "Printing Equipment."

Typewriters.—C. E. Yeaton, president Shawnee Commercial College, Box 803, Shawnee, O. T., wants prices on typewriters, etc.

Water Tower.—S. B. Cohen, Madison, Ga., wishes to buy a water tower either 40 or 50 feet high to carry 6000 to 8000 gallons water.

Water-works.—City of Somerset, Ky., T. R. Griffin, mayor, will let franchise August 14 to the highest bidder for the construction and operation of water-works. Usual rights reserved. (See "Electric-light Plant.")

Water-works.—E. P. Nowell, mayor, and city council, Monroe, Ga., will open proposals August 28 for the construction of water-works; proposed plant to consist of two 750,000-gallon pumps, 15x110-foot standpipe, 100-gallon-per-minute pump and induction motor, filter plant, 500 tons of 10, 8 and 6-inch pipe, 45 hydrants, building, storage reservoir, clear water well, etc. For specifications, forms of proposal, etc., address W. H. Nunnally, chairman. E. P. Nowell is mayor of Monroe. J. B. McCrary of Senoia, Ga., is the engineer in charge.

Water-works Equipment.—Town of Horse Creek, Ala., will be in the market for complete equipment for water-works, including cast-iron pipe, power-house, pump and boiler, valves, hydrants, pumping basin and concrete reservoir. Address P. Byrne, consulting engineer, P. O. Box 111, Birmingham, Ala.

Water-works Machinery.—The city of Palatka, Fla., will want estimates on machinery and supplies for \$60,000 water-works system. A. Usina is mayor. W. W. Lyon is engineer in charge.

Wireworking Machinery.—New Century Gate Co., T. E. Howard, manager, Dallas, Texas, wants machinery for manufacturing barb wire.

Woodworking Machinery.—Reelsboro Gin & Mill Co., Reelsboro, N. C., wants machinery for manufacturing telephone pins, brackets, etc.

Woodworking Machinery.—See "Toothpick Machinery."

Woodworking Machinery.—Colonial Manufacturing Co., Abingdon, Va., wants prices on one miter machine, one pony planer (double surfacer), one power-feed rip saw; to be second-hand in good condition.

Woodworking Machinery.—See "Shingle Mill."

MEXICO.

Creamery.—J. E. Nissley of Topeka, Kan., contemplates building a creamery at Guadalupe, Jalisco.

Cyanide Plant.—R. B. Hutchinson, general manager of the Concheco mines, Ocampo, Chihuahua, is planning to increase the capacity of his cyanide plant from 60 to 100 tons daily, and to install an electric-power plant.

Graphite Deposits.—Francisco Tapia of Hermosillo, Sonora, has begun the development of graphite deposits. Three shafts are being sunk.

Stamp Mill.—The Boston & Mexico Gold & Copper Mining Co. is planning to build a stamp mill at its mines near Ameca, Jalisco. E. N. Everett is in charge at Ameca; C. P. Winslow of Boston, Mass., is president.

Wharves and Warehouses.—It is reported that A. J. Kearns will build at Tampico, Mexico, custom wharves and warehouses of modern design and construction equipped for handling all kinds of products.

Railways.

Steam Railroad.—A. J. Peyton & Co. of New York are reported to be financing the first 55 miles of the projected Morelia & Tacambaro Railway. E. J. Chamberlain is president; G. E. Fauquier, vice-president, both of Ottawa, Canada; J. L. Graitsinger of Brooklyn, N. Y., second vice-president, and C. D. Knapp, Jr., of New York city, secretary. The line will be about 225 miles long.

Steam Railroad.—T. Alfred Kennion, commission and general agent, Orizaba, Vera Cruz, Mexico, writes the Manufacturers' Record confirming the report that he has the contract for building a railroad from Orizaba to La Perla; also branches. He would consider propositions to finance it, although he is figuring to build it with local capital. It will be standard gauge; survey to begin shortly.

Steam Railroad.—The Chihuahua & Pacific Railroad is reported to have completed the Temosachic branch and to have opened it for traffic. It is 86 kilometers long from La Junta, near Minaca, to Temosachic.

INDUSTRIAL NEWS OF INTEREST

Patterns for Machine Tools.

The drawings, patterns and special tools for a line of machine tools, together with a large quantity of finished and partly-finished parts of machines, are offered for sale. Address "Receiver," care of the Manufacturers' Record.

Water-Power for Rent.

Manufacturers needing a Southern location where water power can be rented at a minimum figure are invited to address Dayton Hunter of Elizabethton, Tenn. He has power to supply to factories, and Elizabethton has decided advantages as a site for factories. Write for full details.

Gas-Machine Agents Wanted.

An opportunity for energetic responsible agents is offered by the Walther Lighting & Heating Manufacturing Co., 713 Harrison street, Davenport, Iowa. This company manufactures cold-process gasoline gas machines, which have proven their efficiency and economical qualities, and the company is desirous of engaging agents to handle the line.

R. S. Armstrong & Co.

Messrs. R. S. Armstrong & Co., Atlanta, Ga., are occupying their large new building and warehouses, where they carry a complete line of new and second-hand machine tools, drills, planers, shapers, lathes and attachments. They buy machine tools and equipment. This firm has been very successful in its line of business, now extending all over the South.

Enlarging the Sullivan Plant.

The Sullivan Machinery Co. is making some important additions to its manufacturing plant at Claremont, N. H., in order to keep pace with the rapid growth of business in air compressors, coal-cutters, rock drills and other mining and quarrying machinery. The improvements comprise six new buildings, practically doubling the present plant. The offices are at Chicago.

To Sell Ice Plant.

The attention of those who are interested in an investment of such character is invited to a proposition for the sale of an ice plant located in a town of 6000 inhabitants. The plant is of the can system design and in first-class condition, having a capacity of 10 tons. Purchaser can secure a whole or half-interest. Information can be had by addressing "Middle South," care of the Manufacturers' Record.

Locomotives and Materials Offered.

It will interest many buyers to know that the locomotives formerly used by the Brooklyn Rapid Transit Co. and the plant of the Perth Amboy Shipbuilding Co. have been purchased by Henry A. Hittner's Sons, 32 Broadway, New York. The shipbuilding purchase includes a large tonnage of plates, angles and channel bars, all of which, together with the locomotives above mentioned, are offered for sale. The first applicants will receive first attention.

Standard Metalwork Co.

The Standard Metalwork Co. has been instituted by the G. H. Bushnell Press Co., Thompsonville, Conn., for the purpose of conducting the manufacture of large pipe bends with improved joints for high-pressure steam service and difficult metalwork generally, including steam superheaters, condensers, feed-water heaters, as well as appliances for refrigerating, evaporating, distilling, etc. James A. Colvin is proprietor; Mark Worth Bushnell, business director, and James Acton Miller, mechanical engineer and director, the latter having been engaged a number of years in the above class of special work.

"Thor" Tools in Demand.

The Independent Pneumatic Tool Co., First National Bank Building, Chicago, states that since it acquired the Aurora Automatic Machinery Co., it has received an unusually large number of orders for "Thor" piston air

drills, reversible wood-boring, reaming, tapping and flue-rolling machines and pneumatic chipping, calking, heading and riveting hammers. These orders came from railroads, foundries, shipyards, boiler shops and other industrial works. The Independent Company's export business has also increased materially, and the outlook for a continuance of the active demand for both foreign and domestic use is very encouraging.

A Continuous Oil Press.

The E. J. Codd Company, 700 to 708 South Caroline street, Baltimore, Md., has just finished the building of a continuous oil press 30 inches in diameter and 12 feet long (invented by Messrs. Fiddymont and McNally), which is to be shipped to a fish factory on the Chesapeake bay. These machines are being introduced by the American Continuous Oil Press Co. of New York, branch office in Norfolk, Va. They will be manufactured by the E. J. Codd Company, which has one of the best-equipped shops in the country and is constantly turning out special machinery for parties all over the United States. The new press dispenses with all labor and press cloth, and is used in the extraction of oil from cottonseed and linseed; also the oil from garbage and fish.

Conscientious Electrical Work.

Quality rather than price should be the guiding principle in determining who should be entrusted with electrical installations; in fact, conscientious work pays in all avenues of activity. The conscientious work done by Messrs. Kohler Bros. in wiring buildings and installing electric-light and power plants has secured for them numerous clients. A recent important contract which the firm handled was for the electrical equipment of the Baltimore American's new pressrooms in the building recently completed for that newspaper's permanent home. Gen. Felix Agnus, the American's publisher, wrote Kohler Bros. a strong letter expressing satisfaction at the work. Kohler Bros. were awarded the gold medal at St. Louis for the most perfect system of electrical operation and speed control of printing presses. They are electrical contractors, engineers and manufacturers of switchboards, panelboards, etc., and have their offices in the Fisher Building, Chicago, and in the Metropolitan Life Building, New York.

Just a Paper Weight.

One of the useful things frequently seen on the desk of the business man is the paper weight. The article has varied uses, and its presence enables the busy office worker to make use of its possibilities in many ways. One of the best known Southern manufacturing enterprises has recently made for distribution where advisable a paper weight that is unusual in its appearance. This weight is to represent the leading product of the manufacturer. It takes the form of a car axle with a car wheel on each end, mounted on a pedestal, where the axle and the wheels can be revolved, the whole being upheld over a metal base; in fact, the entire work is metal, representing in miniature the specialty of the Wm. J. Oliver Manufacturing Co. of Knoxville, Tenn., maker of the Oliver self-rolling mine-car wheel. This company builds coal-mine machinery, manufactures mining supplies, etc., besides various other mining and contracting necessities, such as incline-plane conveyors, gravity-plane sheaves, coal conveyors, brick cars and drying equipment, etc.

The "Childs" Fire Extinguishers.

An interesting exhibition of the efficiency of the "Childs" fire extinguishers was given in Baltimore last week. A large box measuring 16 feet high, 4 feet wide and 2 feet deep was constructed, four gallons of hot tar and asphaltum was spread over the interior and 20 newspapers were placed in the bottom, and over this inflammable material two gallons of coal oil was poured, thoroughly saturating it. A match was then applied, and when the fire had a good headway and the flames were shooting 60 feet in the air a number of "Childs" extinguishers were turned on the fire and in exactly 10 seconds it was completely extinguished. The test was conducted by John H. Buxton, the Baltimore sales agent of the manufacturer, and probably 500 persons witnessed the successful demonstration. Mr. Buxton has been actively engaged for some months in introducing the "Childs" fire extinguishers in Baltimore and surrounding cities, and the efficiency of the device he offers is bringing him many orders from owners of factory buildings, warehouses, office buildings and other structures. The O. J. Childs Company of Utica, N. Y., manufactures the extinguisher.

A Cotton-Mill Sale.

Cotton manufacturers or others who may be interested in obtaining possession of a

complete cotton-manufacturing plant in the New England district are advised that the well-known enterprise named the Enfield Mills, and located at Enfield, R. I., is to be offered for sale next Tuesday, August 15. This is not an unsuccessful property with old and worn-out machinery, but is a complete cotton-yarn and cloth plant of good repute, with a record of success. It includes water-power, steam plant and full equipment of textile apparatus ready to start at a moment's notice. It has always made cotton yarn, cotton cloth and fancy cottons. Enfield has decided advantages in the way of labor, transportation, pure water and other necessary factors in cotton manufacture. The sale of the Enfield Mills will be held, regardless of the condition of the weather, on the premises at 12.30 P. M. The entire mill property will be sold as one lot, including a portion of the village. Twelve parcels of village property will also be offered in separate lots. An illustrated pamphlet has been issued giving all the details regarding this opportunity for manufacturers, and copies of same can be had by addressing Messrs. J. E. Conant & Co., the auctioneers in charge, Lowell, Mass.

Reclamation of the Yuma Desert.

One of the most difficult irrigation undertakings is the proposition to transform 55,000 acres of the Yuma desert into fertile farming lands. The United States Reclamation Service awarded the contract to J. G. White & Co., Inc., New York. The nearest town is Yuma, 12 miles down the Colorado river. Suitable drinking water is extremely scarce, and the summer temperature ranges from 100 to 120 degrees. A modern camp will be built, controlled by special officers employed by the contractors or by government police of the Indian reservation. It will provide ice and cold storage. Transportation difficulties will be overcome by the use of 30-foot gasoline launch. Barges and other floating equipment will transport heavy supplies. At the dam will be located telephone and telegraph systems. Where the Colorado river forms a dividing line between California and Arizona a dam one mile long will be built. It will extend completely across the valley and have a sluiceway at either end connected with the main arteries of the system of irrigating canals. Ordinarily the Colorado river at this point is about one-quarter of a mile wide, but the flats on either side are frequently flooded by high water, especially during the early summer months. The contractors estimate that they will remove over 300,000 cubic yards of solid rock excavation and 300,000 cubic yards of lighter material. The rock will afterwards be used for filling in the dam. The three vertical concrete core walls in the interior of the dam will require 30,000 cubic yards of concrete and 50,000 lineal feet of sheet piling. Eighty thousand cubic yards of rock paving three feet thick will be needed to complete the face of the dam. Construction is to be pushed rapidly this fall and winter so that the dam may be finished before the wet season of 1906. Large orders have already been placed for prompt shipments of the elaborate equipment necessary. As indicative of the determination to finish this contract within the year, it is interesting to know that the White Company's engineers began work within six hours after the contract had been signed.

TRADE LITERATURE.

South Carolina Gazetteer.

Business men generally will be interested in a Gazetteer and Business Directory of South Carolina for 1905-1906, which is being issued by the Lucas Richardson Lithograph & Printing Co., 130 E. Bay street, Charleston, S. C. The book contains names of over 70,000 taxpaying farmers and every business firm in South Carolina, lending valuable assistance in obtaining business information, sending out circulars, etc.

The "Radialax" Coal Cutter.

The "Radialax" is a new device that solves the problem of machine shearing in the coal mine. The fact that such a device was on the market has attracted much attention, and coal-mining men will be greatly interested in the first pamphlet describing it at length. This pamphlet is now ready for distribution. It has been prepared by the Ingersoll-Sergeant Drill Co., 11 Broadway, New York, manufacturer of the "Radialax."

Chains, Rivets, Washers, etc.

Manufacturers and other operators in the industrial field who have need for chains, washers, rivets and burrs and other similar product will find of interest the little leaflets recently issued by the Allegheny Forging Co. of Pittsburg, Pa., offices in the Frick Building. The company's leaflets list the chains and other articles referred to as manufactured at the mills which the company has in

Allegheny. The quality of these products is the best that high-class materials, workmanship and perfected modern machinery can offer to consumers.

Mills, Crushers and Shellers.

Operators of plants wherein feed mills, crushers and shellers are used will find timely facts for their consideration in the Circular No. 16 issued by the C. O. Bartlett & Snow Company, Cleveland, Ohio. This circular illustrates and describes the Triumph feed mills, crushers and shellers, a line of machines which this company originated and which have given satisfaction to the most exacting users of such equipment in the milling industry. In economy, efficiency and durability the Triumph mills have proven to be even more than the manufacturers of them have claimed.

Clutchology.

A clutch is a device for transmitting power, which can be conveniently engaged and disengaged at the will of the operator. It is largely used in the industrial world, and progressive men interested in clutches are a ways on the alert to learn of improved designs offered by manufacturers. The subject of clutches is given attention at some length in a little booklet entitled "Clutchology," which is being sent out by the Automatic Clutch Co. of Akron, Ohio. This company manufactures an ideal clutch, of which details are presented in the booklet mentioned. Write for a copy.

Profitable Conditions Shown.

An interesting document is the semiannual statement of the Chicago Pneumatic Tool Co. of Chicago, manufacturer of pneumatic tools of various kinds. It has been issued recently, and the profitable conditions shown speak strongly in favor of the merits of the company's pneumatic equipments, for without especial merit it is not likely that such results would have been obtained in conducting the company's business. The profits for the half-year amount to some \$413,941.54, from which is taken funds for keeping plant up to date, experimenting and perfecting new lines of tools, bond interest and sinking fund reserve, leaving some \$273,736.52 available for dividend. Two quarterly dividends of 1 per cent. were declared, and the balance of \$151,600.86 was carried to the surplus.

Caldwell Vapor-Cooled Engine.

Managers and purchasing agents of railway companies seeking the best equipments for interurban service are invited to investigate the "Summit" steam engine. This motor is the perfected design of the company which successfully put a steam engine and boiler in the truck of a car, and did the same thing with a gasoline engine. The company has issued an explanatory leaflet telling how to equip interurban cars with a combination of steam and gasoline engines, and obtain advantages that tend to minimize the cost of operation and at the same time do all the work that is required. The "Summit" is the name of the company's engine. It makes no smoke, odor or noise, needs no fireman, power-house, poles or copper wire, but nevertheless performs the duties which are demanded in everyday service. It is evident that there are advantages in the Caldwell cars which every progressive railway man should be informed of. Write for the leaflet, which gives the full particulars. The Caldwell Vapor-Cooled Engine Co. of Polo, Ill., manufactures the vapor-cooled gasoline engines and "Summit" steam engines.

A Perfected Concrete Mixer.

Every day sees a steady increase in the use of concrete for building and other construction purposes. Concrete is evidently destined to be one of the most important materials used in construction work, and in applying it one of the most necessary things is to have a perfect product. Designers and makers of concrete mixers have therefore given great attention to this, and perfected mixers after much experimentation and practical work, proving the merits of their inventions. It has been noted that much ill-digested information regarding concrete and its manufacture has been current, and to correct wrong impressions and post people thoroughly and accurately on the subject there has recently been issued a most valuable illustrated pamphlet. This publication is entitled "Instructions to Agents," and it gives information of a reliable nature prepared by experienced engineers, and it enables salesmen of concrete mixers to inform themselves about the machine to be offered to buyers. The pamphlet says that "a mixer salesman, to do the best work, should have some knowledge of cement in general and concrete work in particular. He will find on his excursions that a great many men engaged in making a living as workers in concrete are possessed of but little knowledge

on the subject, and only know that cement and stone mixed in certain proportions with water will make concrete. He will find among these men a great many strange ideas, and while they affect to understand their subject thoroughly, they are always looking for information, and the man who can give them the best information becomes a friend of theirs. A mixer salesman can do his work best if he is posted and lets the people understand that he is posted, but at the same time does not force his advice upon them. It is better for him to confine himself to trying to sell the mixer, but at the same time to be prepared to answer all kinds of unexpected questions. It is poor policy for a man to put up a front unless he has the knowledge and ability to back up his pretensions." In accordance with these facts the Municipal Engineering & Contracting Co., offices at 607 to 611 Railway Exchange Building, Chicago, Ill., has had the "Instructions to Agents" prepared by competent authorities, and in its pages special stress is laid on the efficiency and economy of the Chicago improved cube concrete mixer, which is the machine manufactured by that company. All the facts about concrete are presented in concise but yet complete form, and data is given as to the revolving cube—or tumbling box—mixer, how to secure a perfect mix, hand mixers, a "dry" mix, street-paving work, bridgework, heavy concrete work, etc. No one who is interested in the increasing use of concrete for the purposes to which it is being adopted in all parts of this country, as well as other countries, can afford to remain ignorant of the valuable facts which have been collected and printed in the publication herein named. A limited number of copies still remains for distribution to those who will address the Municipal Engineering & Contracting Co. at its offices as above stated. Write promptly if you are interested.

The Iron and Metal Trades.

The Iron Age of New York in its weekly review says:

"What moderate movement has taken place in pig-iron has been in basic pig. A large consumer in the St. Louis district has purchased about 25,000 tons, of which about 15,000 tons was from Alabama and the balance from Virginia makers. In Eastern Pennsylvania a structural plant has purchased two lots of 4000 tons each, with additional tonnage pending. All this iron is for delivery during the latter part of the year and into 1906. It is reported that the business was done on the basis of \$13 Birmingham and \$15.50 delivered Eastern Pennsylvania.

"The most interesting fact in connection with the pig-iron markets, however, is that it is likely that the United States Steel Corporation may re-enter the market as a buyer for next month if the demand for the lighter steel products develops as expected, and as indicated thus far. It is understood that with its furnaces running at the present rate the Steel Corporation is drawing upon its stocks at the rate of about 20,000 tons per week, and that if this continues the level of what is considered safe as to the stock of iron will be passed. As an indication of the pressure for iron it may be noted that with the blowing in during the past few days of one furnace at South Chicago and one at Joliet the Illinois Steel Co. has every stack in the Chicago district in operation.

"As throwing a sidelight upon another branch of the industry, we may mention that the charcoal pig-iron makers of the Northwest were only recently working out the details of a plan for reducing the output by 25 per cent. So large have been the sales during the recent buying movement that that plan is now in abeyance.

"It is yet too early to judge whether the strike against the American Bridge Co. is likely to develop any troublesome features. It is not believed that it will be of any consequence locally. Contracting for bridges and buildings has now been practically completed for the season, and comparatively little new work is being added to the overflowing order-books of the fabrication shops and the structural mills."

FINANCIAL NEWS

The MANUFACTURERS' RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,
Baltimore, Md., August 9.

The Baltimore stock market during the past week has experienced the dullness that is usual at this season, but the tone was good, and some disposition to advance was shown by several issues, with activity at the end of the period. In the trading United Railways common sold from 14 1/4 to 15, and the trust certificates from 14 1/4 to 15 1/2; the incomes from 60 to 62 1/2, and the trust certificates from 59 1/4 to 61 1/2; the 4s from 93 3/4 to 94 1/2. Consolidated Gas changed hands at 85, the 6s at 108 1/4 and the 4 1/2s at 102. Seaboard common was dealt in at 22 1/2, the new common at 25 to 25 1/2, the preferred at 43, the new first preferred at 89 to 90, the new second preferred at 54 1/2 to 56, the 4s at 90 to 91 1/4, the 3-year 5s at 101 1/2 to 102 and the 10-year 5s at 104 1/2. Cotton Duck 5s sold at 84 1/4 to 84 3/4; G. B. S. common at 9 and 9 1/4, the incomes at 30 to 31 and the 1sts at 62 1/4 to 62 3/4.

Bank stocks sold as follows: Commonwealth, 81; Third National, 128 to 130; Bank of Baltimore, 121.

International Trust was traded in at 141 to 140 1/2.

Other securities were sold as follows: Maryland & Pennsylvania common, 22; Norfolk Railway & Light, 13; Northern Central, 106 to 109 1/4, reacting to 108; Atlantic Coast Line new 4s, certificates, 94 1/2 to 94; do. consolidated 4s, 103 to 103 1/4; do. Connecticut stock, 440; do. do. 5s, certificates, 115; do. do. 4s, do., 93 1/2; do. do. do. 5-20s, 94 1/2; Augusta Railway & Electric 5s, 104 1/2; Charleston Consolidated Electric 5s, 96 1/2 to 98; Carolina Central 4s, 98 1/4; Baltimore City 5s, 1916, W. L., 118; do. 3 1/2s, 1930, 108 1/4; do. do., 1936, 109 1/4; do. do., 1928, 107 1/4; Virginia Electric Railway & Development 5s, 100; Georgia Southern & Florida 5s, 114 1/4; Baltimore Traction Convertible 5s, 101 1/2; Virginia Midland 2ds, 111 1/2; Georgia, Carolina & Northern 5s, 111 to 111 1/4; Anacostia & Potomac 5s, 106 1/4; Maryland Telephone general mortgage 5s, 82 1/4; Georgia Southern & Florida first preferred, 99; Fort Worth & Denver 6s, 115; Georgia & Alabama Consolidated 5s, 111 1/2 to 112; Metropolitan (Washington) 5s, 117; Alabama Consolidated Coal & Iron 5s, 90 1/2 to 91; Charleston & West Carolina 5s, 112 1/4; Macon Railway & Light 5s, 99; Norfolk Railway & Light 5s, 93 1/4; Pittsburg United Traction 5s, 114 1/4; Baltimore Brick common, 11; Virginia Midland 5ths, 115; International Mercantile Marine 4 1/2s, 79 3/4.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended
August 9, 1905.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line of Conn.	100	438	447
Georgia Southern & Florida	100	30	36
Georgia Sou. & Fla. 1st Pref.	100	79	80
Georgia Sou. & Fla. 2d Pref.	100	72	75
Maryland & Pennsylvania	100	23	23
Norfolk Railway & Light	25	13	13
Seaboard Railway Common	100	22 1/2	23
Seaboard Railway Preferred	100	43	45
United Railways & Elec. Co.	50	15	15 1/2
Bank Stocks.			
Citizens' National Bank	10	28	...
Commercial & Far. Nat. Bank	100	122	160
Drovers & Mech. Nat. Bank	100	200	...
Farmers & Mer. Nat. Bank	40	50	...
First National Bank	100	150	...
Maryland National Bank	20	21 1/2	22 1/2
Merchants' National Bank	100	168	...
National Bank of Baltimore	100	120	121
National Bank of Commerce	15	24	...
National Exchange Bank	100	174	...
National Marine Bank	30	36	38
National Mechanics' Bank	10	26 1/2	30
National Union Bank of Md.	100	120	125
Third National Bank	100	...	130
Western National Bank	20	...	40

Trust, Fidelity and Casualty Stocks.

American Bonding & Trust	50	35	...
Central Real Estate & Trust	50	57	60
International Trust	100	139 1/2	140 1/2
Mercantile Trust & Deposit	50	140 1/2	145 1/2
Union Trust	50	...	59

Miscellaneous Stocks.

Ala. Con. Coal & Iron Pref.	100	...	94 1/2
Consolidated Gas	100	85	86
Consolidated Cotton Duck	50	11	12
Consol. Cotton Duck Pref.	50	32 1/2	34
G. B. & S. Brewing Co.	100	82 1/2	84 1/2
George's Creek Coal	100	72 1/2	80

Railroad Bonds.

Albany & Northern 5s, 1946	...	92 1/2	...
Atlanta & Charlotte 1st 7s, 1907	...	104	...
Atlan. Coast Line 1st Con. 4s, 1952	102 1/2	103	...
Atlantic Coast Line 4s, Cfs., 1952	94	94 1/2	...
Atlantic Coast Line (Conn.) 5s	113	115	...
Atlantic Coast Line (Conn.) 4s	...	94 1/4	...
Balto. & Harrisburg Ext. 5s, 1938	112 1/2	115	...
Carolina Central 4s, 1949	...	98	98 1/2
Charleston & West. Car. 5s, 1946	112 1/2	113	...
Coal & Iron Railway 5s, 1920	...	105	107 1/4
Columbia & Greenville 1st 6s, 1916	115	117	...
Georgia & Alabama 5s, 1945	111 1/2	112	...
Georgia, Car. & North. 1st 5s, 1929	111 1/4	111 1/2	...
Georgia Pacific 1st 6s, 1922	122 1/4	...	...
Georgia South. & Fla. 1st 5s, 1945	115 1/4	115 1/2	...
Maryland & Pennsylvania 4s, 1951	95	...	...
Piedmont, Class A 5s, 1926	113	...	...
Piedmont & Cum. 1st 5s, 1911	105	...	...
Potomac Valley 1st 5s, 1941	116	...	...
Richmond & Danville Gold 6s, 1915	115	115 1/2	...
Seaboard Air Line 4s, 1950	91	91 1/4	...
Seaboard Air Line 5s, 10-year, 1911	104	105	...
Seaboard Air Line 5s, 3-year	102	...	...
Seaboard & Roanoke 5s, 1926	110	...	...
Virginia Midland 2d 6s, 1911	111	...	...
Virginia Midland 4th 3-4-5s, 1921	112 1/2	113	...
Western Maryland new 4s, 1952	88	...	...
West. North Carolina Con. 6s, 1914	113	...	...
West Virginia Central 1st 6s, 1911	110	111	...
Wilmington & Wel. Gold 5s, 1935	118	...	...

Street Railway Bonds.

Augusta Rwy. & Elec. 5s, 1940	104 1/2	...	...
Baltimore Traction 1st 5s, 1924	117	...	...
Baltimore Traction Conv. 5s, 1906	101 1/2	101 1/2	102
Central Ry. Ext. 5s (Balto.), 1932	118	...	...
Charleston Con. Electric 5s, 1909	98	99	...
City & Suburban 5s (Wash.), 1948	...	107	...
Lexington Railway 1st 5s, 1949	103	...	...
Macon Ry. & Lt. 1st Con. 5s, 1953	98 1/2	99	...
Newport News & Old Pt. 5s, 1938	90	93	...
Norfolk Railway & Light 5s	93	94 1/2	...
United Railways 1st 4s, 1949	94 1/2	94 1/2	...
United Railways Inc. 4s, 1949	62	62 1/4	...

Miscellaneous Bonds.

Alabama Consol. Coal & Iron 5s	90 1/2	91 1/4	...
Consolidated Gas 6s, 1910	108	108 1/2	...
Consolidated Gas 5s, 1939	115	116 1/2	...
Consolidated Gas 4 1/2s, Cfs.,	...	102	...
G. B. & S. Brewing 1st 3-4s	62 1/2	63	...
G. B. & S. Brewing 2d Income	30 1/4	31 1/4	...
Maryland Telephone 5s	96	97 1/4	...
Mt. V. & Woodby Cot. Duck 5s	84 1/2	84 3/4	...
United Elec. Light & Power 4 1/2s	94	98	...

New Corporations.

It is reported that a new bank is being organized at Harrisburg, Ark.

The Bank of West at West, Miss., is reported to have begun business.

Barlow Roberts is reported to be organizing a national bank at Kingston, I. T.

The Hernando State Bank has begun business at Brooksville, Fla. John C. Law is cashier.

The Harrodsburg Trust Co. is to begin business at Harrodsburg, Ky., September 15; capital \$50,000.

The Interstate Mutual Fire Insurance Co. is reported organized at Augusta, Ga., with H. H. Cummings as president.

J. B. Gambil of Cornersville, Tenn., is reported to be organizing a bank with \$10,000 capital at Westmoreland, Tenn.

The Harrah State Bank of Harrah, O. T., has begun business; capital \$10,000; H. C. Stahl, president; A. G. Hollis, cashier.

The Bank of Mitchell is reported chartered at Bakersville, N. C., with \$10,000 capital, by Isaac H. Baker, S. J. Turner and others.

The Canton State Bank of Canton, Texas, is about to open for business; capital \$10,000; Otho S. Houston, president; Harry H. Houston, cashier.

The Farmers' Mutual Fire Association of West Virginia, with headquarters in Fairmont, W. Va., has been organized by 50 farmers of Marion county.

The Citizens' Bank & Trust Co. of Bartlesville, I. T., has been incorporated; capital \$100,000; incorporators, Frank Phillips, H. J. Holm and D. L. Owsley.

The First National Bank of Linn Creek, Mo., has been authorized to begin business with a capital of \$25,000; Andrew J. Watson, president; J. M. Farmer, cashier.

The Farmers and Merchants' Bank of Lynnville, Tenn., will, it is reported, open about September 1 with John Paulk, president, and George B. Witt, cashier.

The First National Bank of Lancaster, S. C., has been organized; capital \$25,000; Chas. D. Jones, president; R. E.

Wylie, vice-president; E. M. Croxton, cashier.

The Bank of Baldwin, La., has begun business; capital \$25,000. The officers are John Baldwin, Jr., president; Wm. B. Kemper, vice-president, and J. D. Morris, cashier.

The Gulf States Investment Co. of Union, Miss., has applied for a charter; capital \$200,000. Among the incorporators are S. M. Jones, F. L. Riley and R. W. Jones.

The First National Bank of Rogers, Ark., has begun business; capital \$25,000. The officers are George D. Parks, president; F. Z. Meeks, vice-president; W. H. Cowan, cashier.

The Conqueror Trust Co. of Joplin, Mo., has been incorporated by William and Edna Houk, H. H. McNeal, Jesse Starr, P. E. Harney, Samuel Tomblin and Joseph S. Walker.

The Rowland Building and Loan Association of Rowland, N. C., has organized by electing A. L. Bullock, president; R. L. Rogers, vice-president; A. T. McKellar, secretary and treasurer.

The Commercial Securities Co. of St. Louis, Mo., has been incorporated with \$65,000 capital. The incorporators are Percy Warner, A. M. Dobie, Edward D'Arcy and Walter J. G. Neun.

The Atlanta Mutual Insurance Association of Atlanta, Ga., has applied for a charter. The incorporators are A. F. Herndon, J. H. Crew, M. W. Woodall, W. A. Aderhold and W. H. Jackson.

The Southern Live-Stock Insurance Co., Valdosta, Ga., a mutual organization, has applied for a charter. The petitioners are R. W. Eubanks, W. C. Willis, L. R. Christie, A. F. Passmore and J. C. Wilkinson.

The Securities Investment Co. of Jonesboro, Ark., has been incorporated, with a capital of \$50,000. The corporators are Fred Roberts, president; J. F. Gautney, secretary; William Craddock and S. L. Shaver.

The Citizens' National Bank of Whitney, Texas, has been approved; capital \$25,000. The organizers are Mark Wheeler, Whitney, Texas; O. B. Carver, W. T. Herrick, T. P. S. McCown and W. L. Sanderson.

The Realty Trust Co. of Memphis, Tenn., has applied for a charter; capital \$100,000. The incorporators are H. Smith, R. E. McGill, R. E. McGill, Jr., R. M. Buck, J. W. Winkler, John B. Ross and C. S. Northrop.

The Scottish Rite of Free Masonry Cathedral Building Association, Meridian, Miss., publishes its charter. The incorporators are Frederick Speed, O. A. Harrison, James T. Harrison, M. R. Grant, H. T. Howard and others.

The Lincoln National Bank of Hamlin, W. Va., capital \$25,000, has been approved. The organizers are Louis R. Sweetland, Hamlin, W. Va.; Leslie M. Thacker, B. F. McGhee, B. B. Curry, C. E. Burns and D. E. Wilkinson.

The Bank of Bowden in Monroe county, Georgia, has applied for a charter; capital stock \$50,000. The application is signed by L. B. Parker, J. W. Barrow, O. T. Johnson, L. F. Sewell, R. M. Loran and J. L. Loran, all of Monroe county.

The First State Bank of Narrows, Va., has been incorporated by J. G. Alvis, president, Narrows, Va.; T. C. Fuller, vice-president, Boonesville, Ky.; J. P. Brown, cashier, Narrows, Va.; capital stock, maximum, \$50,000; minimum, \$25,000.

The First National Bank of Solomons, Md., has been approved; capital \$25,000. The incorporators are W. H. Crockett, C. L. Marsh, W. E. Wortham, Wm. H. Hellen, J. T. Marsh and others. F. V. Baldwin of Baltimore is said to be interested.

The Home Building Association of Hot Springs, Ark., has been organized; capital \$200,000, of which \$6000 is paid in; W. D.

Sadler, president; J. M. Langston, first vice-president; J. W. Underwood, second vice-president; H. G. Sadler, secretary and treasurer.

The Planters' Bank has been organized at Bogue Chitto, Miss., by electing D. C. Coney, Dan Bolien and B. E. Brister as directors, who elected B. E. Brister, president; D. Bolien, vice-president, and W. P. Bonds, Jr., cashier. The bank will open immediately.

The Adams & Boyle Fire Insurance Co. is reported incorporated at Little Rock, Ark.; capital stock \$250,000, of which \$100,000 is subscribed and \$50,000 paid in. The officers are John F. Boyle, president and treasurer; Sam B. Adams, vice-president; John F. Boyle, Jr., secretary.

The Southern Life Casualty Insurance Co. has applied for incorporation at Paducah, Ky.; it is an assessment concern; J. C. Speight of Mayfield, president; Geo. O. McBroom, secretary; Samuel T. Hubbard, treasurer, both of Paducah. R. E. Bayles of Bandana is also an incorporator.

The Hutchinson Audit Co. of Jacksonville, Fla., has been incorporated with \$25,000 capital. The officers are Thomas G. Hutchinson, president; David H. Doig, vice-president; M. A. McLaren, secretary and treasurer; Thomas G. Hutchinson, David H. Doig and M. A. McLaren, directors.

The Jasper County Bank of Heidelberg, Miss., capital \$30,000, is reported organized with the following officers: President, T. M. Heidelberg; vice-president, S. W. Abney; cashier, C. A. Ferrill. The following are directors: T. M. Heidelberg, S. W. Abney, R. P. Clayton, B. F. Ferrill.

A dispatch from Kosciusko, Miss., reports the organization of a new bank there with \$50,000 capital. The officers are: President, F. Z. Jackson; vice-president, C. L. Anderson; cashier, J. W. Fletcher; directors, C. L. Anderson, F. Z. Jackson, E. L. Ray, M. T. Boswell, J. M. Chestnut, James F. McCool, C. F. Carnes.

The Citizens' Bank has been organized at Fitzgerald, Ga., with \$25,000 capital. The officers are Mayor Drew W. Paulk, president; J. A. Justice, vice-president; R. V. Handley, second vice-president, and W. P. Rudisill of Tifton, cashier. The bank is to begin business within a month.

The Bank of West is reported to have begun business at West, Miss.

The Harrison County Bank, capital \$25,000, which may be increased to \$100,000, has been organized at Biloxi, Miss., with D. J. Gay, president; Geo. W. Grayson, vice-president; Milton C. Vaughn, cashier; E. G. Bond, assistant cashier; directors, D. J. Gay, G. W. Grayson, L. A. Lundy, C. B. Elarbee, R. M. Davis, T. H. Greason and W. W. Sutcliff.

A new bank is reported organized at Rural Retreat, Va., with \$12,000 to \$15,000 capital; W. F. Gammon, president; J. M. Phipps, vice-president; E. M. Davis, cashier. Later information gives its name as the Bank of Rural Retreat, and it is to open September 1. The other directors are C. C. Catron, John L. Brown, Oden Neff, J. M. Miller, W. S. Lindsey and O. L. Baumgardner.

The Bank of Yadkin is reported chartered at Yadkinville, N. C., by W. H. Reniger and others; capital \$50,000, of which \$10,000 is subscribed. The full list of incorporators includes W. H. Bailey and T. J. Byerly of Advance, E. L. Gaither of Mocksville, W. H. Reniger of Shore, together with W. A. Hall, J. K. Holton, T. K. Harding, J. M. Phillips, William Pass, J. W. Pass, T. W. Hawes and H. B. Jamieson, all of Yadkinville.

The First National Bank of Hancock, Md., capital \$30,000, has been organized by electing U. B. McCandlish of Piedmont, W. Va., president; Edmund P. Cohill of Hancock, vice-president, and De Warren

H. Reynolds of Cumberland, solicitor. These, with Fairfax S. Landstreet, vice-president of the Western Maryland Railroad; William A. Morgart of Cumberland, Capt. J. H. Kuhn and Warford N. Mann of Hancock, form the directorate. Robert J. McCandlish, son of U. B. McCandlish, is cashier.

Application for a new national bank at Washington, D. C., has been filed with the comptroller of the currency by gentlemen interested in the Merchants and Mechanics' Savings Bank, which will, however, be continued as at present. The new bank is to be on 7th street, between E and G streets; capital \$300,000. The organizers are Charles Kraemer, P. A. Drury, William A. Hill, F. T. Sanner, Henry Evans, W. G. Dunnington and Charles J. Walker. Later information says the title is the National City Bank of Washington, and it has been approved.

New Securities.

Baton Rouge, La.—The city council has accepted the bid of the Hibernia Bank & Trust Co. for \$240,000 of city bonds at par.

Brookhaven, Miss.—Mr. T. C. Hannah writes the MANUFACTURERS' RECORD that the mayor and aldermen will receive bids until the first Tuesday in September for \$10,500 of bonds. Interest not more than 4½ per cent.

Bryson, Texas.—The attorney-general has approved \$3600 of 5 per cent. 5-20-year school bonds of Bryson district.

Burford, Ga.—Reported that the Robinson-Humphrey Company of Atlanta has purchased the \$20,000 of 5 per cent. bonds issued for light, water and schools, \$10,000, \$6000 and \$4000, respectively.

Clinton, Ga.—Jones county is to vote on the question of issuing courthouse bonds.

Coalgate, I. T.—The Secretary of the Interior is reported to have approved the issue of \$62,000 of school bonds by the town of Coalgate.

Columbia, S. C.—Bids will be received by the city clerk and treasurer until 2 P. M. September 1 for the \$400,000 of 4 per cent. water-works bonds of the city of Columbia. Mayor T. H. Gibbs will furnish particulars.

Cookeville, Texas.—The State board of education is reported to have purchased at par the \$1000 of 5 per cent. school bonds. Dallas, Texas.—Mayor Bryan T. Barry writes the MANUFACTURERS' RECORD that the question of issuing about \$300,000 of water improvement bonds and \$100,000 sewage disposal bonds, besides some other bonds, will be submitted to a vote of the people, but it will be at least a month before anything definite can be said.

Danville, Va.—The new street bonds are to be issued about September 1, the ordinance approved by the people having been adopted by the council.

Durham, N. C.—The city has sold to Eastbrook & Co. of Boston, Mass., the \$50,000 of 4½ per cent. school bonds at a premium of \$2555.

El Paso, Texas.—Adams, Phillips & Co. of Los Angeles are reported to have made the highest bid (\$54,102) for the \$50,000 of El Paso school bonds, series 5.

Fayetteville, N. C.—Seasongood & Mayer of Cincinnati have purchased the \$30,000 of city electric-light 5 per cent. bonds at \$31,920.

Fort Payne, Ala.—De Kalb county will vote on the question of issuing \$50,000 of road bonds.

Franklinton, N. C.—The Citizens' Bank of Franklinton is reported to have bought at 105.55 the \$10,000 of 5 per cent. school bonds.

Gainesville, Fla.—An issue of \$50,000 of school bonds is expected to be voted this week.

Hugo, I. T.—The question of issuing \$15,000 or \$20,000 of school bonds is under consideration.

Huntington, W. Va.—Reported that Cabell county will vote upon the issue of \$120,000 of bonds to liquidate the debt.

Johnson City, Tenn.—The election announced for August 2 to vote on \$35,000 of school bonds has been postponed until November.

Kosciusko, Miss.—Bids will be received until noon on October 3 for \$5000 of 5 per cent. school bonds. W. M. Noah is mayor, and S. P. Rimmer, Jr., clerk.

Lake City, Fla.—The city has voted to issue \$135,000 of improvement bonds.

Laurel, Miss.—Mr. W. F. Daley, city clerk, writes the MANUFACTURERS' RECORD that the \$20,000 of 5 per cent. Laurel school bonds have been sold to Denison, Prior & Co. of Cleveland, Ohio, at \$20,914 and accrued interest.

Livingston, Tenn.—The Overton County Railroad Co. will meet on September 23 to vote upon an issue of \$250,000 of 5 per cent. bonds. W. M. Breeding is president.

Marksville, La.—Reported that bids will be received until August 29 for \$15,800 of water and electric-light bonds.

Marlin, Texas.—Falls county is reported to have voted to issue bridge bonds.

Mendon, Mo.—G. W. Ingram is reported to have purchased the \$5000 of 5 per cent. school bonds.

Morehead, N. C.—The Brown-Ellinwood Company of Chicago is reported to have taken at 104.24 the \$15,000 of 5 per cent. bonds.

Morganton, N. C.—Reported that C. A. Webb & Co. of Asheville, N. C., have bought the \$20,000 of school bonds at 104.2.

Morristown, Tenn.—F. M. Stafford & Co. of Chattanooga have purchased the \$40,000 of 5 per cent. refunding water bonds and the \$5000 of funding bonds at 105.

Mullins, S. C.—The \$10,000 of 6 per cent. school bonds for which bids were received August 1 were not sold, the highest bid being 109.

Palatka, Fla.—The bond trustees have decided to issue \$60,000 of bonds for water-works.

Pensacola, Fla.—The bonds to be voted for on August 22 are as follows: \$250,000 for water-works, \$250,000 for sewers and drains, \$150,000 for streets, \$75,000 for City Hall and \$25,000 for police station and jail.

Perry, Fla.—Mr. John C. Calhoun, clerk of the Circuit Court of Taylor county, writes the MANUFACTURERS' RECORD that the entire issue of Perry water bonds, \$15,000, was purchased by the Citizens' Bank of Perry at par.

Petersburg, Va.—The \$75,000 of improvement bonds will not, it is said, be offered for sale until October.

Rio Vista, Texas.—The State board of education has purchased the \$5000 of school bonds.

San Angelo, Texas.—The city has voted to issue \$30,000 of 5 per cent. bonds instead of \$25,000 of 4 per cents, lately voted.

San Antonio, Texas.—The issue of \$50,000 of school bonds failed of endorsement at the election by lack of a two-thirds majority.

San Antonio, Texas.—The city will, it is reported, issue \$300,000 of refunding bonds to retire an equal amount of 6 per cents called for redemption on July 22.

Shelbyville, Tenn.—The town has voted to issue \$20,000 of electric-light bonds.

South McAlester, I. T.—The city has voted to issue \$125,000 of school bonds.

Spartanburg, S. C.—The city has voted to issue the \$100,000 of street bonds.

Triadelphia, W. Va.—Another election will be held in October to decide the issue of \$50,000 of school improvement bonds,

owing to failure to observe technicalities surrounding the last vote.

Waxahachie, Texas.—The city council is to call an election to vote on the issue of \$5000 of 4 per cent. bonds to purchase the Chautauqua Park.

Weldon, N. C.—Bids will be received until noon September 7 for \$8000 of 6 per cent. school bonds. J. A. Musgrove is secretary of the board of trustees.

The town of Houston, Miss., offers for sale \$13,500 of 5 per cent. water and light bonds. Further particulars will be found in the advertising columns.

Bids will be received by the New Hanover county commissioners at Wilmington, N. C., until noon on August 30 for \$50,000 of 4 per cent. road bonds. D. McEachern is chairman. Further particulars will be found in the advertising columns.

Bids will be received by the board of education at Ripley, W. Va., until August 22 for the \$13,000 of 5 per cent. 5-20-year school building bonds. Holly G. Armstrong is president of the board. Further particulars will be found in the advertising columns.

Messrs. Julius Christensen & Co., 926 to 931 Drexel Building, Philadelphia, are offering for sale \$238,000 of the Reno Power, Light & Water Co. 6 per cent. sinking fund gold bonds, the total issue of which is \$750,000. Further particulars will be found in the advertising columns.

Financial Notes.

The Farmers' State Bank of Glasgow, Ky., has increased its capital from \$30,000 to \$50,000.

The Austin National Bank of Austin, Texas, is reported to have absorbed the City National Bank of the same city.

The Ellis Loan & Trust Co. of Waxahachie, Texas, has increased its stock from \$20,000 to \$40,000.

The Texas Title & Loan Co. of Waxahachie, Texas, has amended its charter to increase the capital from \$50,000 to \$75,000.

The First National Bank of Abbeville, La., will vote in October upon a proposed increase of capital from \$25,000 to \$50,000. Its surplus is \$15,000.

The comptroller of the currency has approved the conversion of the People's Bank of Lyons, Ga., into the First National Bank of Lyons, with a capital of \$25,000.

The Alabama Savings Bank, just organized at Florence, Ala., has increased its capital from \$30,000 to \$35,000 and added 12 more directors. It is to begin business October 1.

The North Carolina State prison board has, it is reported, bought since the last meeting \$45,000 of North Carolina 4 per cents, making a total of \$104,200 which it has purchased.

The National Bank of Cleburne, Texas, is reported to have absorbed the Citizens' National Bank of the same place, the former increasing its capital to \$250,000; W. F. Ramsey, president; S. B. Norwood, cashier.

According to a report from the comptroller's office, the State banks of Tennessee showed at the close of June total resources of \$59,070,514; loans and discounts, \$34,791,566; individual deposits, \$36,233,660; certificates of deposit, \$4,900,572.

According to a statement of the territorial bank commissioner, there are 95 national banks and 257 territorial banks in Oklahoma, making a total of 352 banking concerns. The total deposits are nearly \$23,000,000, of which the territorial banks hold over \$8,000,000.

T. H. Daughtrey, secretary of the Board of Trade and Business Men's Association of Norfolk, Va., has compiled a comparative statement of the banks of that city, showing a large gain in seven years. In 1898 the totals were: Capital, \$1,365,-

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000; surplus, \$819,870; deposits, \$3,995,772; loans, \$4,176,829. In 1905 they are: Capital, \$2,183,000; surplus, \$1,521,896; deposits, \$11,978,468; loans, \$10,185,745.

PROPOSALS.

BIDS ON JAIL.

WANTED—Contractor to build new jail at a cost of \$5000 to \$8000, or overhaul old jail at a cost of \$3000 to \$5000. Bids to be received on grounds Monday morning, August 14th, 1905, at 9 o'clock, subject to the approval of the County Court, to be in session. Parties desiring to bid will wire County Clerk of their coming.

J. N. CANNON,
J. C. BITTREY,
W. H. OFFERMAN,
W. H. CHILTON,
H. G. KEISLING,
Court.
Livingston, Tenn., July 29, 1905.

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